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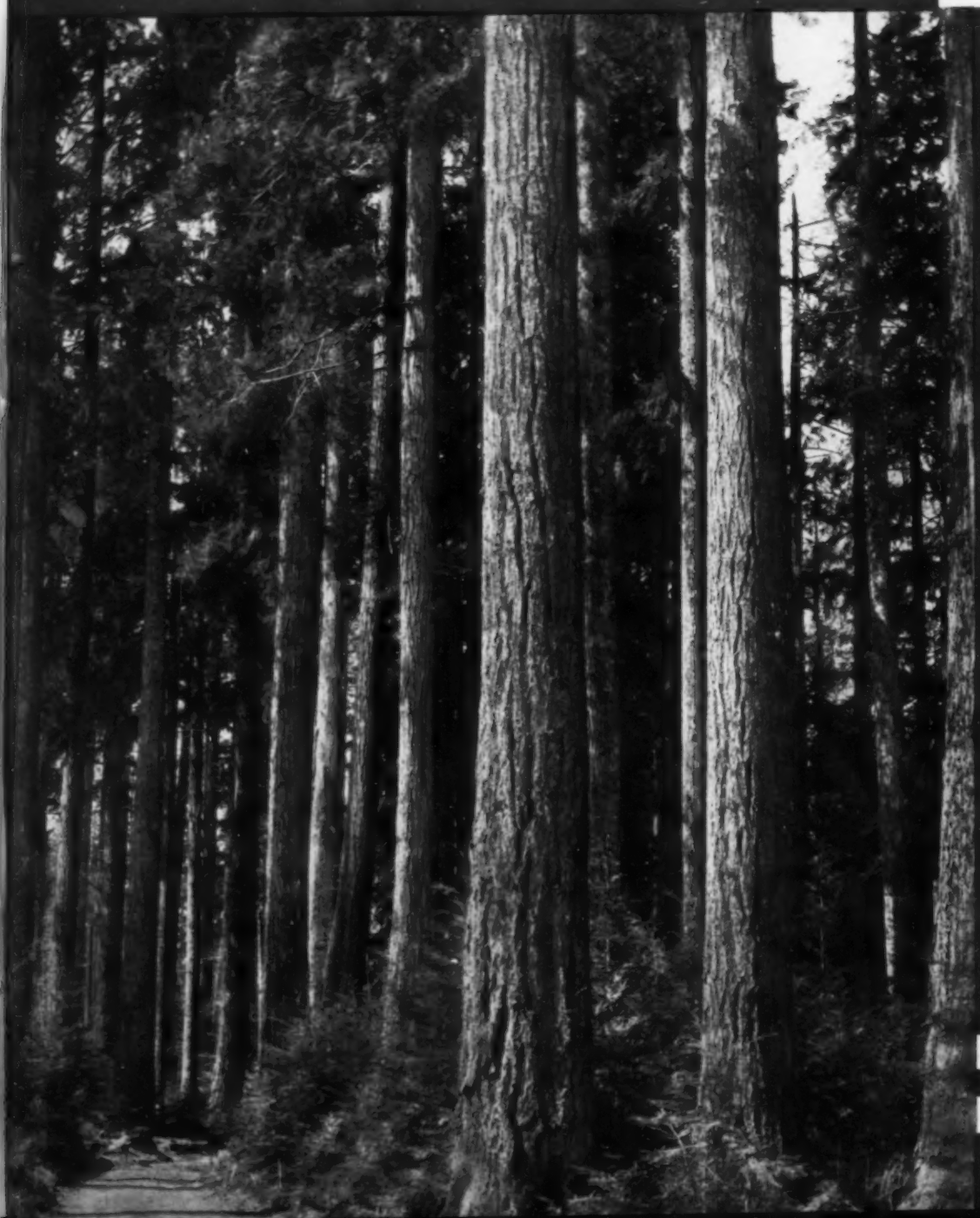
NO. 5



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172 WELLINGTON STREET, BROCK BUILDING - OTTAWA, CANADA

CANADIAN GEOGRAPHICAL JOURNAL

Editor - Gordon M. Dallyn

172 WELLINGTON STREET, OTTAWA

This magazine is dedicated to the interpretation, in authentic and popular form, with extensive illustration, of geography in its widest sense, first of Canada, then of the rest of the British Commonwealth, and other parts of the world in which Canada has special interest.

Contents

NOVEMBER, 1937 VOLUME XV, No. 5

COVER SUBJECT:—*This stand is typical of the Douglas Fir in British Columbia which at present supplies 39 per cent of the lumber manufactured in Canada and 48 per cent of the lumber exported.*
Photo by Leonard Frank.

• • • •

The British standard of spelling is adopted substantially as used by the Dominion Government and taught in most Canadian schools, the precise authority being the Oxford Dictionary as edited in 1929.

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THE LUMBER INDUSTRY IN CANADA

by ROLAND D. CRAIG

THROUGHOUT its more than two and a half centuries of operation in Canada, the lumber industry has been essentially a pioneering industry, the precursor of agriculture and settlement. Penetrating the virgin forests, the lumbermen have opened up vast areas for settlement, and many of the highways on which we now travel in high speed automobiles were originally "tote" roads on which oxen or horses plodded through the woods, hauling loads of supplies to the logging camps or logs to the mills.

Where the land had agricultural possibilities, many of the men who came to harvest the timber remained to till the soil. Removal of the heavy timber lessened to a very considerable extent the arduous task of clearing the land. The seasonal employment provided by the logging camps and sawmills and the markets thus created for farm products were, and still are, of the greatest assistance to settlers in their efforts to establish homes.

The associations of forest and agricultural interests have not always been as mutually beneficial as they might have been. Often the settlers have been inclined to neglect their farms in favour of the wages to be secured in the woods, and, in clearing the land they have been responsible for the destruction by fire of vast quantities of valuable timber—probably more than has been used by the lumbermen. When we arrive at the stage where the forest industries are dependent on current growth, and are maintained on a permanent basis, farming and woods operations should be carried on in close co-operation for the benefit of each.

There is very little definite information available in regard to the genesis of the lumber industry in Canada, but it shares with flour and grist-milling the distinction of being one of the oldest manufacturing industries. The colonists arriving on the Atlantic coast found dense forests of excellent wood, both soft and hard, with which to build their homes. Logs and hand-hewn timbers sufficed at first, but there was soon a demand for sawn boards, and sawmills were built to supply the local needs. It is not known when the first sawmill was built, but there are indications of a local trade in lumber in Quebec shortly after 1650; and before the close of the seventeenth century there were several sawmills operating along the St. Lawrence. In a report, "Memoires de l'Acadie," of 1692, there is a reference to a "scier des planches" at Port Royal in Nova Scotia. Also, in a report by Charles Morris, chief surveyor in Nova Scotia, dated January 9, 1762, it is stated that "there are already fifteen sawmills built and building in the new townships, which in a year or two will cut deals more than enough for their own consumption." It would appear that the first sawmill in Upper Canada was built at Port Rowan in 1798, and though the original mill has been replaced by a more modern plant, the same business is now being carried on by John C. Backus.

The towering pines and staunch oaks attracted the attention of the early mariners, and on their return voyages to the old countries they took cargoes of masts, spars and ship timbers. Ship-building, which was begun in Canada in the 17th century, became an important industry due to the abundance of wood of high quality, and until steel replaced wood for this purpose, it provided an important market for lumber. When the ships were constructed, they were used to a large extent to carry timber—chiefly hewn white pine square timber—to Great Britain, where a large and profitable market was developed. Up until the middle of the nineteenth century, square timber comprised the bulk of the exports, but sawn deals gradually replaced the hewn timber, and by 1904 the square timber trade had practically ceased.

The greatest expansion in the sawn lumber trade in Eastern Canada occurred during the last half of the 19th century, when the Ottawa valley and later the Georgian bay district were opened up. The first mill in the Ottawa valley was built by Philemon Wright in 1808, on the Quebec side of the Chaudière falls—the present site of the city of Hull. In the fifties a great impetus was given to the

Left:—Douglas Fir trees four to six feet or more in diameter and 150 to 250 feet or more in height yield a high percentage of clear lumber and structural timbers in sizes which can be secured in few other places in the world.

Photo by Leonard Frank.

Douglas Fir and Western Red Cedar in British Columbia. These coastal forests frequently yield from 50,000 to 150,000 board feet per acre.

Photo by Leonard Frank.

industry by development of the export trade to the United States, and a large number of mills were established, which not only made fortunes for the owners, but contributed greatly to the prosperity of the Ottawa valley.

At the beginning of this century, there were about twenty large mills in the Ottawa valley which cut over 600 million feet annually. In 1936, the cut probably did not exceed one-fifth of that amount, and many of the larger mills have been closed for some years. This is in a large measure due to the depletion of the saw timber resources, especially of the white pine, resulting from the improvident methods of exploitation and the ravages of forest fires.

This condition is more or less typical of the industry throughout Eastern Canada, and the production has been steadily decreasing during the last twenty-five years. The decrease in the East has been made up, however, by growth of the industry in British Columbia. Twenty-five years ago the eastern provinces supplied two-thirds of the lumber manufactured in the Dominion, but now British Columbia cuts from 55 to 60 per cent.

The first shipment of timber from British Columbia was made in 1788, when Captain Meares took two deck-loads of spars from Nootka sound to China, and the first sawmill was built at Parson's bridge, near Victoria, in 1846. During the Cariboo gold rush, which started in 1858, a number of mills were set up to supply the local demand for building material, and in 1861 a large export mill was built at Alberni on the west coast of Vancouver island, but the venture was a failure and the mill was operated only a short time. A small mill was built at New Westminster in 1862, mainly for domestic trade, but one cargo was shipped from it to Australia. A year or two later a large mill was built at Moodyville, on Burrard inlet, and in 1865 the famous Hastings mill was established on the present waterfront of Vancouver. With the erection of these mills the foreign lumber trade of British Columbia may be said to have commenced. At this period the exports amounted to about 25 to 35 million feet annually. Having no rail transportation until the Canadian Pacific Railway reached Vancouver in 1886, the export trade was confined to water-borne shipments. In this trade the British Columbia Mills Timber and Trading Company, which had acquired the Hastings mill and the Moodyville mill on Burrard inlet and the Royal City Planing mill at New Westminster, was the largest and most consistent exporter. The Hastings mill was operated so continuously that its sawdust burner was used as an aid to navigation, and until it was torn down in 1928 to make way for new wharves, there was seldom any time when one or more ships were not loading lumber at this mill.

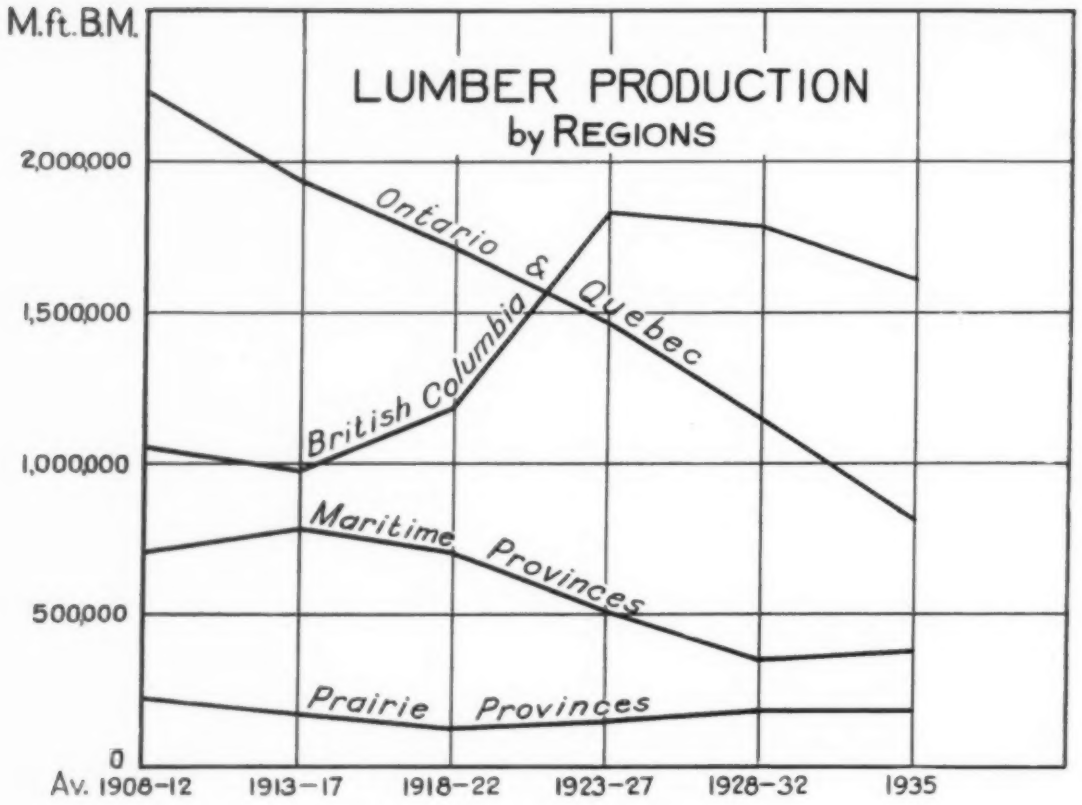
The advent of the Canadian Pacific Railway opened up markets in the prairie provinces and the Middle-western states to the British Columbia lumber industry. This trade, offering quicker returns and higher prices, tended to divert the attention of lumbermen from the overseas trade which, though more dependable, generally offered lower prices due to the competition from northern European countries in those markets.

The completion of the Panama canal in 1914 provided a great impetus to the export trade to the United Kingdom and the Atlantic seaboard of the United States and Canada. During the last ten years—1927-36—in spite of the depression, the average annual shipments from British Columbia ports have amounted to over 670 million board feet. In 1936, over 1,043 million feet were shipped from British Columbia ports.

Logging Operations

The average annual cut of wood for all purposes in Canada has amounted in recent years to the equivalent of 2,580 million cubic feet of standing timber, about one-third of which is used by the lumber industry in the manufacture of sawn lumber, shingles, lathes, etc., one-third for fuelwood, one-quarter for pulpwood, and the remainder for hewn railway ties, poles, fencing material and many other purposes.

The taking out of this amount of timber provides employment on the average for about 84,000 men on a yearly basis, but since most of the logging operations are of a seasonal nature, it is estimated that about 240,000 men derive a substantial part of their employment in the woods. Except on the coast of British Columbia, logging is mostly a winter operation; and since at that time work is to a large extent suspended in many of the industries, such as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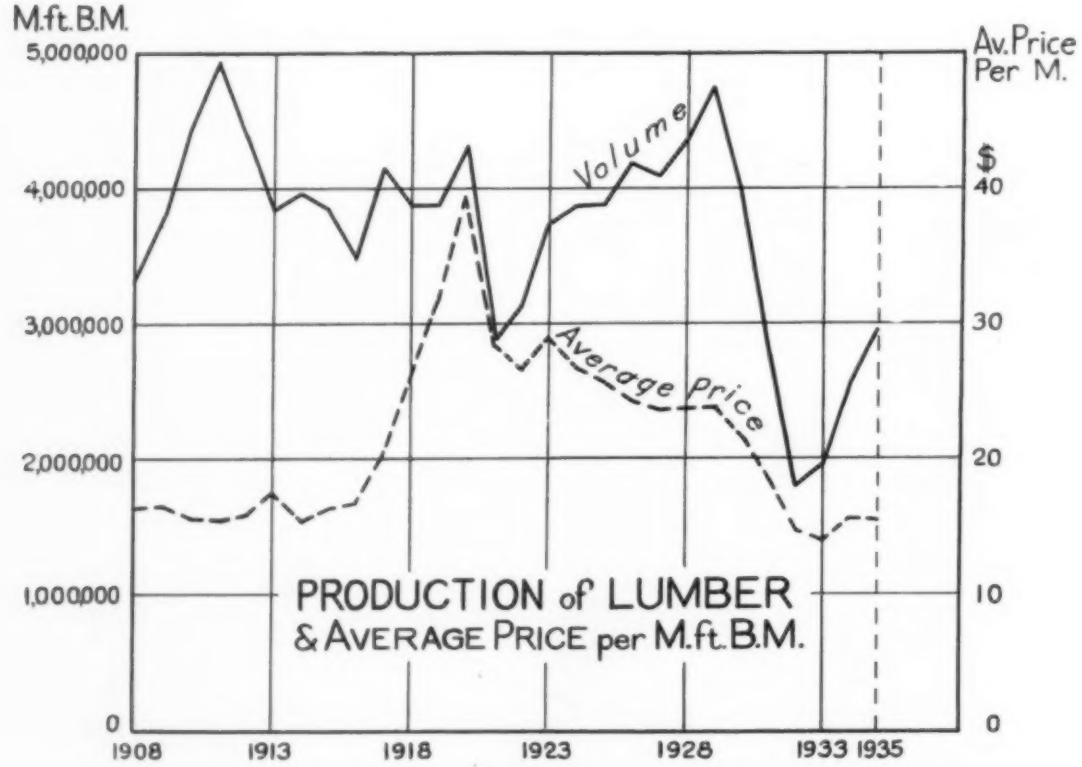
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agriculture, building, road and railway construction and maintenance, this work in the forests is an important factor from the standpoint of employment.

In the softwood operations of Central and Eastern Canada, cutting usually starts in the early autumn and is completed before the end of the year. As soon as the ground is frozen and there is sufficient snow, the logs are hauled by sleigh on iced roads to the lakes and streams, and are floated out on the smaller streams during the spring freshets and down the larger rivers during the summer. On the bigger streams which are used by several operators, the driving is usually done by driving companies. These firms provide the necessary facilities and sort and deliver the logs to the various mills. Each log is marked on the end with the brand of the owner In some operations the logs and pulpwood, especially those of hardwood, are hauled by sleighs to the railways on which they are transported to the mills.

It is estimated that between 25,000 and 30,000 horses are used in woods operations. In a few places, chiefly in Nova Scotia, oxen are still used and found to be very satisfactory under certain conditions. During recent years there has been a considerable increase in the use of trucks and tractors in place of horses for the portaging of supplies and the hauling of logs.

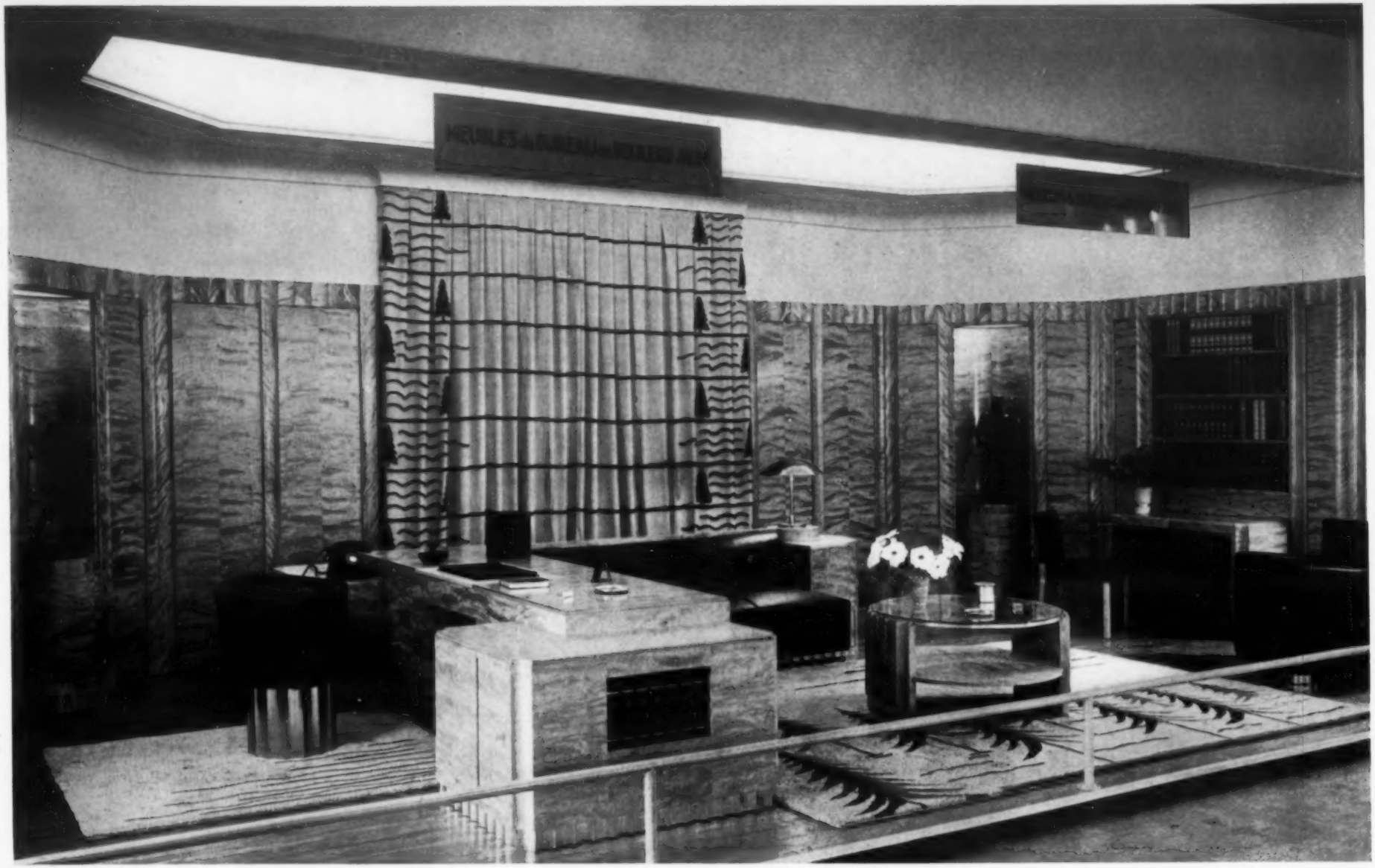
On the Pacific coast, owing to the mild climate, the mountainous terrain and the large size of the timber, entirely different methods of logging are required. The trees, mainly Douglas fir, red cedar, hemlock, Sitka spruce and white fir, range from two to six feet or more in diameter, 150 to 250 feet or more in height, and individual logs often weigh several tons. At first, oxen, and later, horses and mules, were used as motive power to transport the logs to water, and teams of a dozen or more animals were required to haul one log on the greased skids. This was a slow operation and the distance back from the shore which could be logged was very limited. With the development of steam donkey engines the operations were extended farther inland. It is claimed that the use of steam engines in logging originated in British Columbia in 1875, when the Hastings Mill Company acquired two steam tractors which had been brought out from Scotland for freighting on the Cariboo road, and used them to haul logs at Kitsilano, now a residential section of Vancouver.

When donkey engines were first used, the logs were dragged along the ground or on skids by a wire rope attached to a drum on the engine; in much the same manner as they had been hauled by oxen. On the main hauling roads, however, several logs were attached end to end by "dogs" and were drawn out in "turns." Later it was found that by running the cable through a pulley attached to the top of a spar tree 100 or more feet above the ground, the logs could be "skidded" to the main line of transportation — railway or road — more easily and cheaply. With this method the front end of the log is lifted to some extent so that at least some of the obstructions are avoided. This "high-lead" system, as it is called, though a more efficient means of extraction, is very destructive to the small timber which might, if left standing, furnish the next crop.

In some cases, such as in crossing a ravine, a cable is stretched between two spar-trees and the logs are elevated to a travelling carriage. There are many methods of setting up these cable systems to suit the topography and lay-out of the operations. The topping of a spar-tree is a picturesque feat, requiring great skill; and it has received so much publicity that some people, including writers on the subject, have the idea that all the trees are topped before felling.

The use of tractors for skidding and road-building, and of trucks for transportation on the hauling roads, is a recent development in logging technique which is making great progress and promises to facilitate more conservative utilization of the forest resources. When the logs reach the sea, they are made up into booms and towed often hundreds of miles to the mills. British Columbia is most fortunate in having along its 600 miles of coast a most extensive system of fiords and protected waterways for navigation.

This type of logging is of course not dependent on snow and, in fact, the camps are shut down if there is snow. The camps also close down during short periods of extreme fire hazard in the summer. Otherwise they operate throughout the year; usually about 200 days in all. Owing to the size of the timber and the use of machinery, the daily output per man is about 1,000 board feet, as compared with 350 feet in eastern forests.



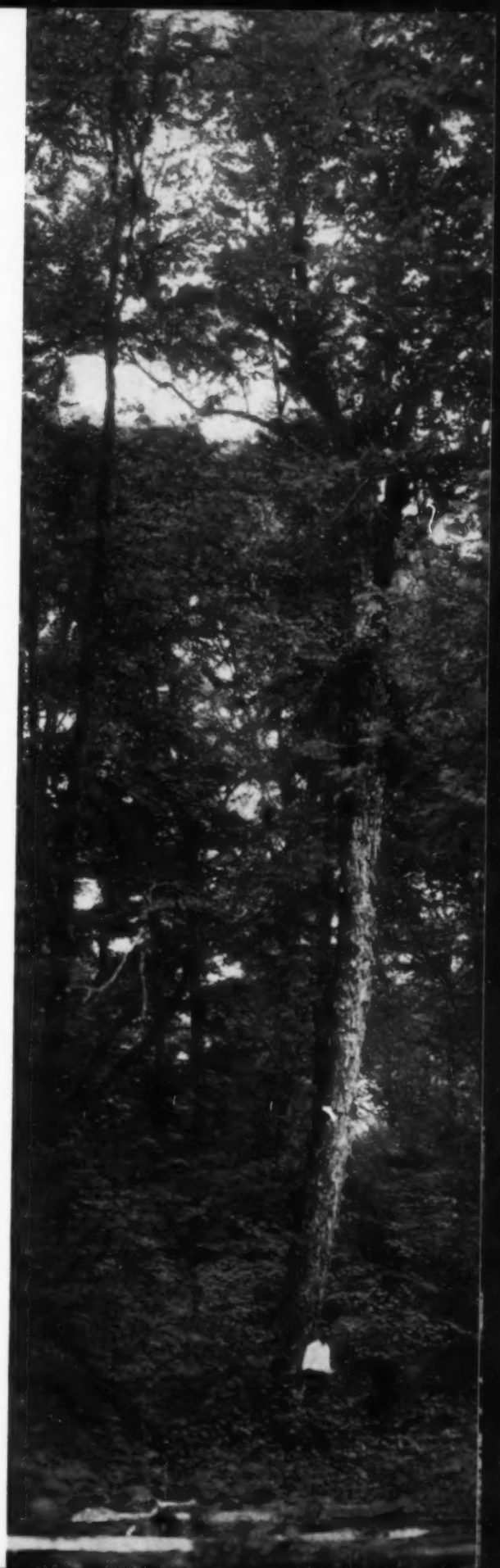
The panelling, flooring and furniture of Canadian Yellow Birch in this room was a striking feature of the Canadian display at the 1937 Paris Exhibition.

Lumber Production

During the last twenty-five years—1911-35 inclusive—there has been considerable fluctuation in the amount of lumber sawn, but it has averaged about 4 billion board. feet. The highest peak was in 1911, when 4.9 billion feet was cut, and the lowest depression was in 1932, when it dropped to 1.8 billion feet. It is expected that when the statistics for 1936 are compiled they will show a production of about 3 billion feet. In this period of twenty-five years, the value of the products of the lumber industry have averaged $111,560,000 annually. In the distribution of this wealth, created by converting the trees in the forests, which have only a prospective or speculative value, into usable products, every citizen has benefited. Labour secured the largest share, about thirty-eight per cent. Supplies and equipment, practically all of which are secured from Canadian farms and industries, amounted to about twenty per cent. The governments obtain a very considerable revenue from the lumber industry in the form of rentals, royalties and taxes of various kinds. The revenue derived from the transportation of sawmill products is of the greatest importance to Canadian railways. During the last five years they hauled, on the average, 75,000 cars of lumber annually, which would make up 3,000 trains of twenty-five cars each.

Lumber Exports

Canada exports a little over one-half of the lumber produced. Up until 1932, the United States provided the largest export market for Canadian lumber, but now the United Kingdom has become the principal market. During 1926-30, only 10 per cent of our exports went to the United Kingdom, and 73.3 per cent to the United States; but in 1936 the United Kingdom took 51.5 per cent and the



Yellow Birch is the most important hardwood in Canada from the standpoint of lumber production. It is used mainly for furniture, flooring and interior woodwork. This tree on the limits of the Singer Manufacturing Company, in the Ottawa Valley, is destined to be used for sewing machines.

United States 28.6 per cent. In 1936, other British countries, chiefly Australia, South Africa, the British West Indies and New Zealand, took 11.2 per cent, and other foreign countries, chiefly China and Japan, 8.7 per cent.

Canadian lumber is now known throughout the world and is firmly established in many of the principal markets. Canada has no monopoly on the trade, however, and our lumbermen must meet the competition of many countries, some of which enjoy important advantages in transportation and production costs. Efficiency in operation and keen merchandizing are requisites in holding this trade.

It cannot be claimed that the present methods of logging—to cut out and move on, opening up of new territory each year—is the most efficient means of maintaining the industry on a permanent and prosperous basis. Our principal competitors, the Baltic countries, operate their forests on the principle of continuous yield, and their industries are assured of supplies of raw material at costs which fluctuate very little. As our more accessible timber is cut with no apparent thought of future crops, the cost of extraction necessarily increases, and though this trend may be obscured by new developments in transportation and by the fact that we have not yet exhausted the supply of relatively accessible virgin stands, the time is not far distant when this factor will be one of grave concern to Canadian lumbermen.

The lumber industry is particularly sensitive to economic conditions since it is to a very large extent dependent on construction. In times of financial stringency it is one of the first to feel the effect, and one of the most seriously affected. In the last two or three years the Canadian lumber trade at home and abroad has made a remarkable recovery, and it can be confidently expected that the industry will soon regain its normal status in the industrial activities of the Dominion.

Sugar Maple, which is sometimes called "hard" or "rock" maple, ranks next to Yellow Birch among the hardwoods in importance for lumber. It is the hardest and heaviest of the more abundant hardwoods in Canada. It works well to a smooth finish and is excellent for turnery and flooring. Curly and Bird's-eye Maple are in special demand for furniture. It is the source of the maple sugar and syrup which are important products in Eastern Canada.

Photo by E. J. Zavitz.

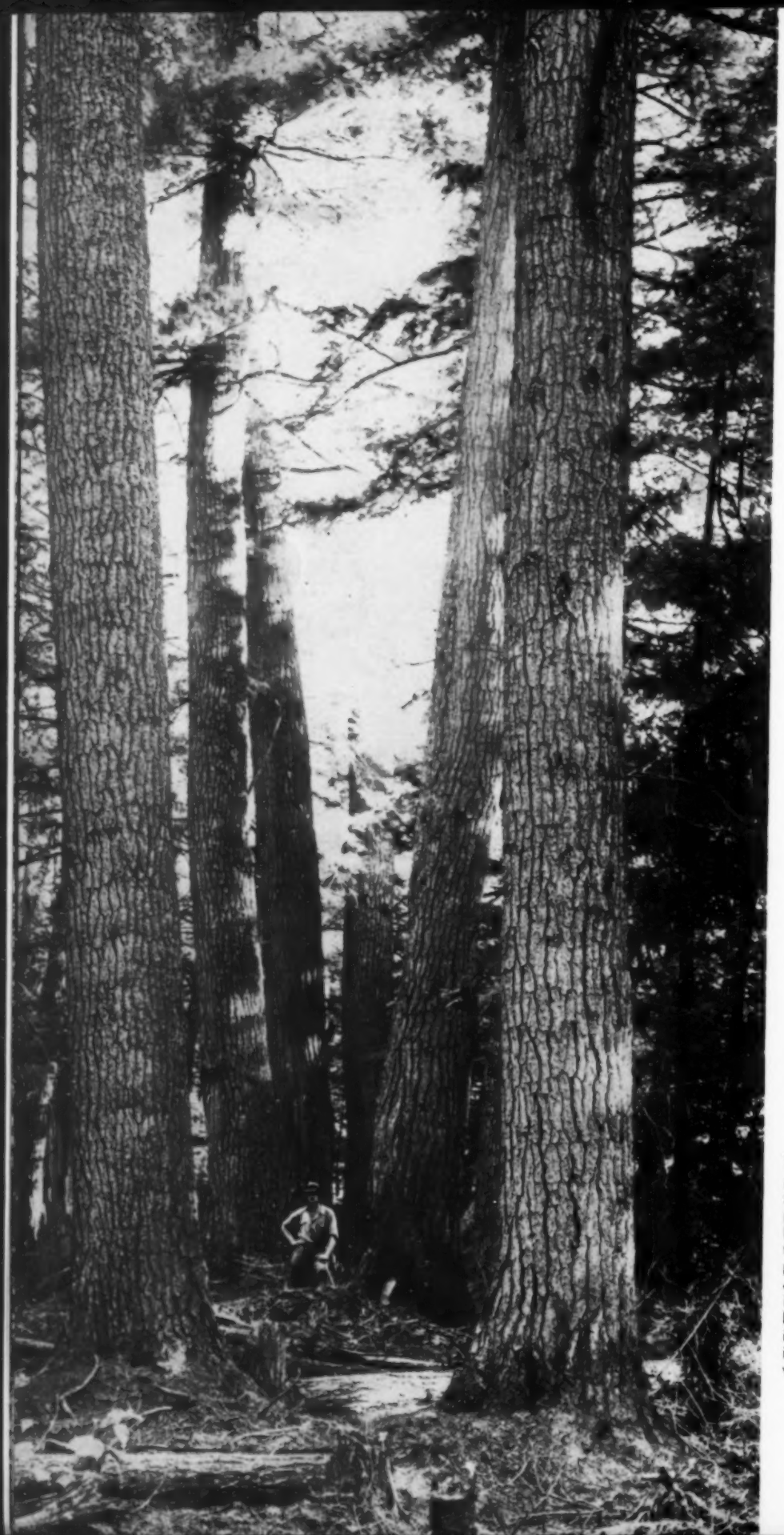
The future of the lumber industry depends on the young stands which comprise about one half of the 800,000 square miles of accessible and productive forests in Canada. Here is a young stand of spruce along the English River in Ontario, which has grown under a protecting nurse crop of poplar, following an extensive fire.

Sitka Spruce on Vancouver Island, B. C. The light but strong and resilient wood of Sitka Spruce is the wood par excellence for aeroplane construction. It is also in special demand for sounding boards for musical instruments, organ pipes, oars, ladders and butter boxes. It makes a beautiful interior finish and is used for light construction.

Photo by Leonard Frank.

This striking avenue of forest veterans on Vancouver Island, taken in 1915, has since been cut.

Photo by Roland D. Craig.



White Pine, once the premier lumber species, still ranks first in lumber production in Ontario, and fourth in Canada. It is the softest of Canadian pines, is even in texture and easily worked, taking a smooth satin-like finish. One of its most important characteristics is its low shrinkage factor when exposed to varying humidity.

Photo by E. J. Zavitz

Red Pine, also known as Norway Pine, though heavier and harder than White Pine, is used for much the same purposes. It is also used extensively for poles, piling and mine timbers.

Photo by E. J. Zavitz.

A logged area at Alouette Lake, B. C. The lines of the logging railway and the locations of the spar trees to which the logs were skidded can be distinguished.

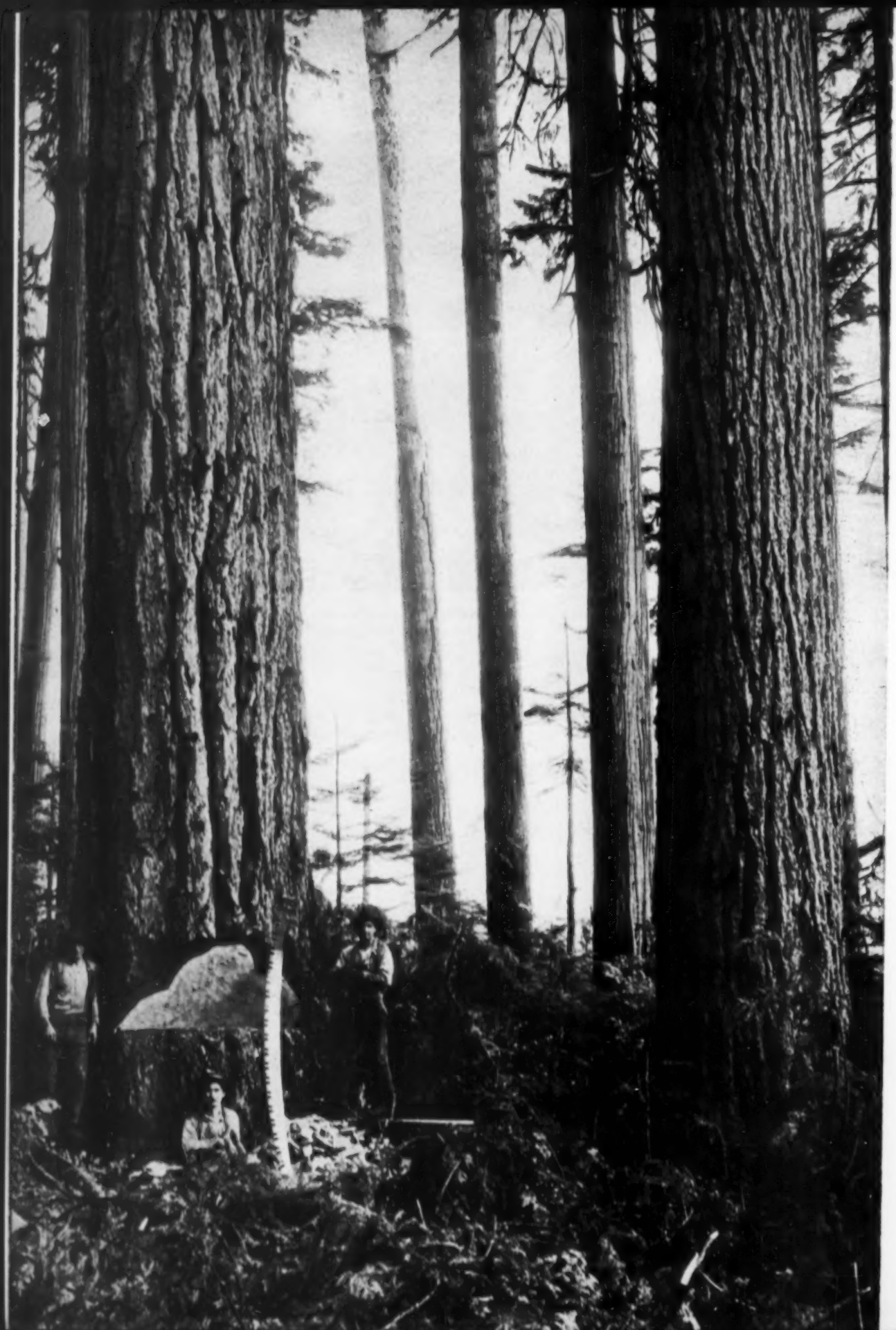
Photos by R.C.A.F

East Thurlow Island, B. C., partially logged. The scar on the hill at the upper left-hand corner is the location of a high-lead setting.

Sproat Lake, situated among the mountains on Vancouver Island, is a beautiful spot. The locations of the spar trees towards which the logs were skidded can be seen in the foreground.

Photos by R.C.A.F.

Nodales Channel, one of the many protected waterways along the British Columbia coast.



Left:—Felling a Douglas Fir Tree. After making a notch to guide the direction the tree is to fall, it is sawn from the other side and wedged over.

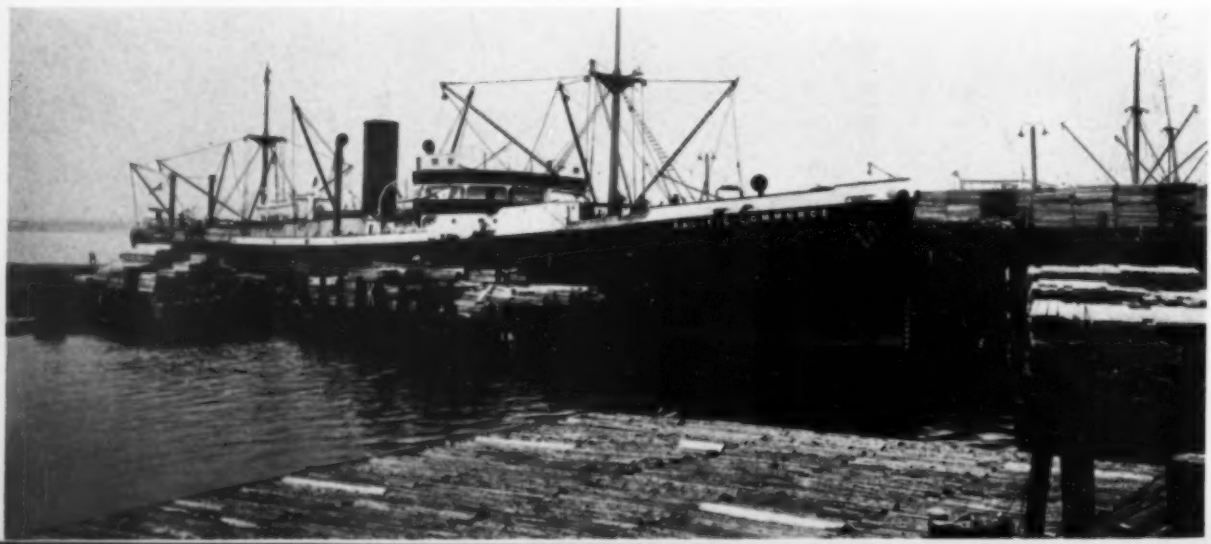
The tree to be used as a spar tree in high-lead logging is first cleared of branches and topped at the desired height, in this case about 150 feet. It is then guyed to make it firm, and a block, through which the hauling cable runs, is attached near the top. By this means a donkey engine placed at the base of the spar tree can haul in the logs within a radius of 1,000 feet or more.

Photos by Leonard Frank.

Loading Douglas Fir logs on railway cars.

Photos by Leonard Frank.

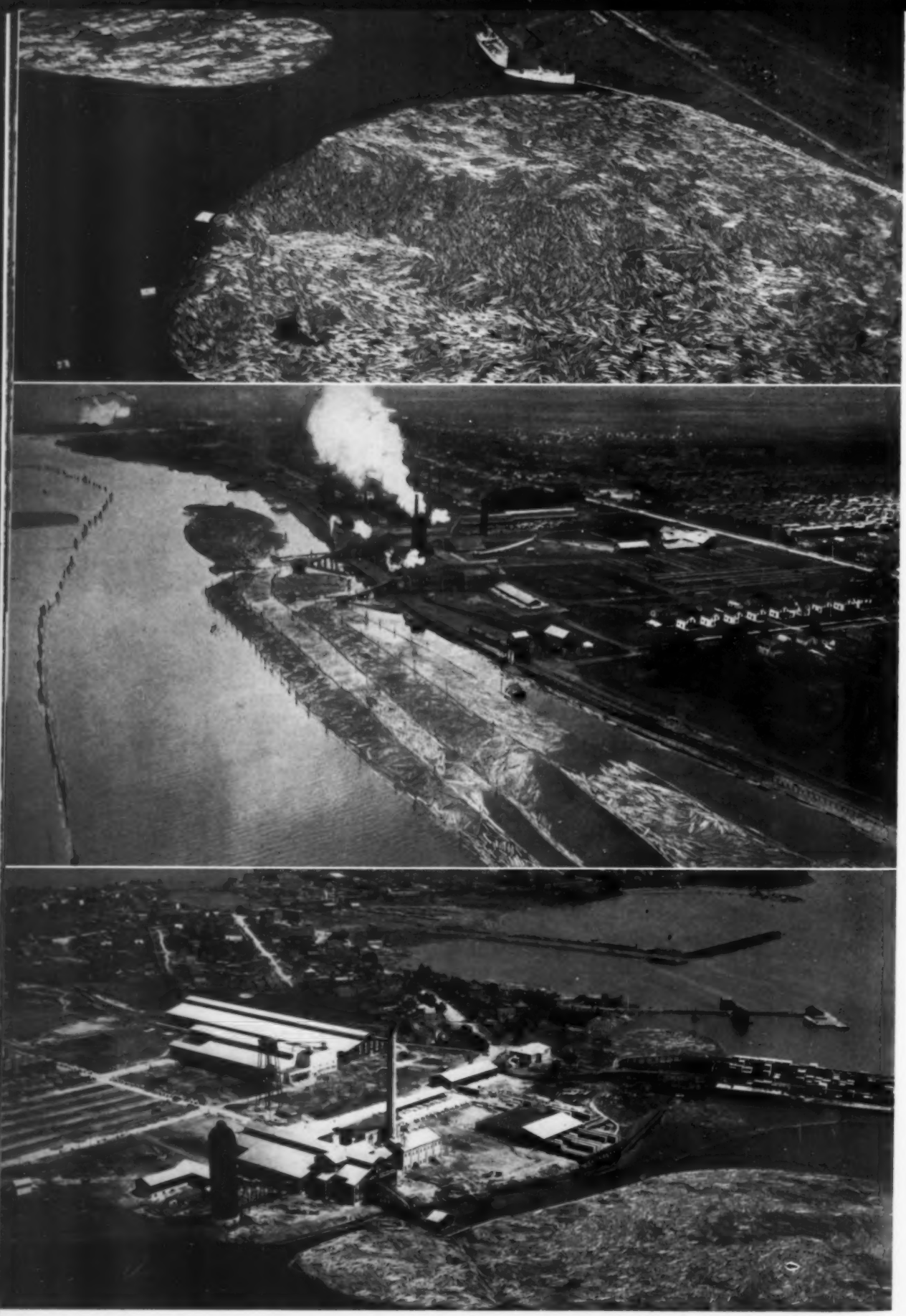
Loading lumber and cedar logs at Vancouver for export to Japan. In 1936 over 1,000 million board feet of lumber was shipped from British Columbia ports.



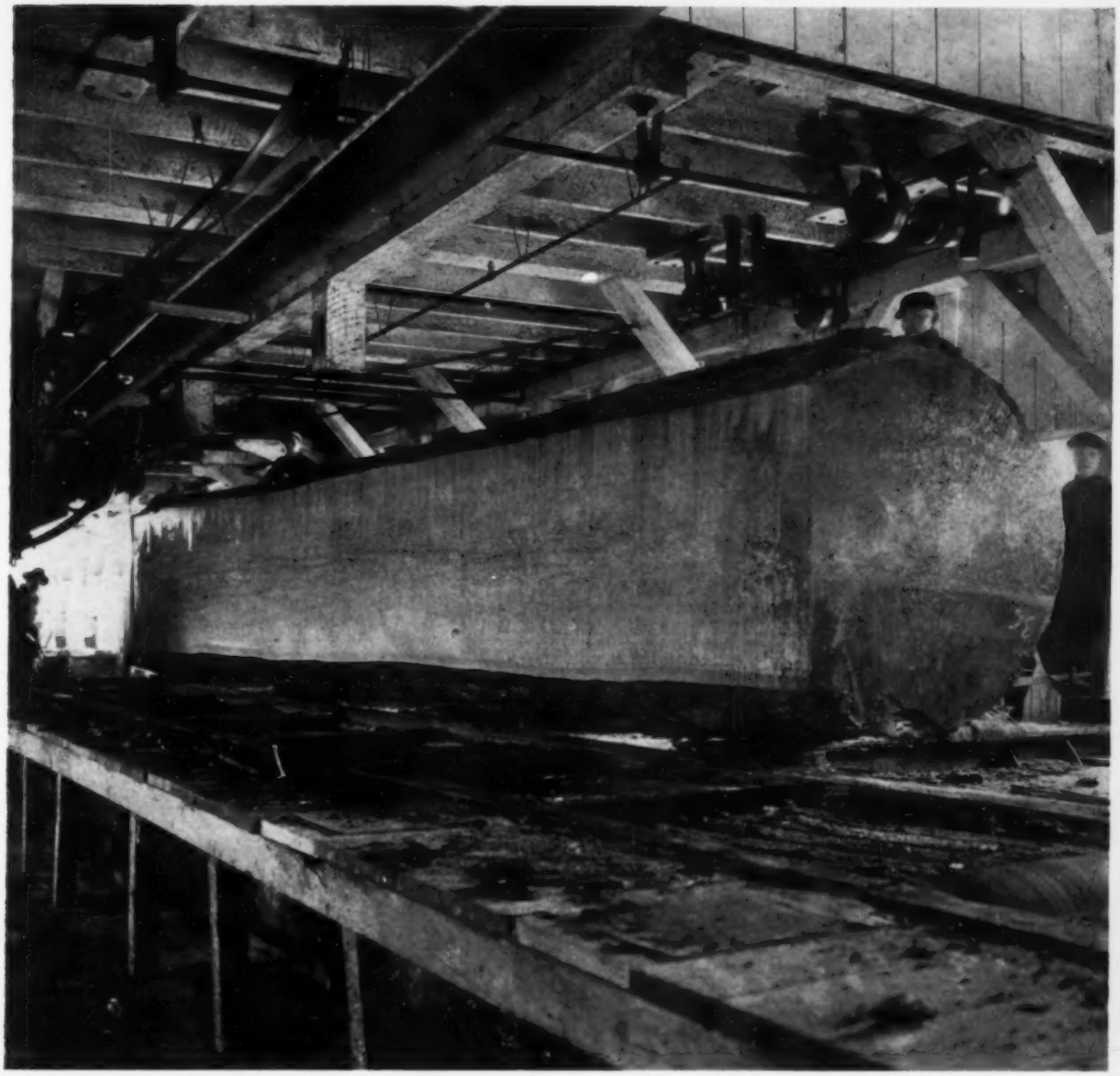
A train load of logs at Courtenay, Vancouver Island. The logs are dumped into the water and made up into booms which are towed to the sawmills.

Photos by Leonard Frank.

Ships loading lumber at the Canadian Robert Dollar mill in British Columbia for export. Canadian ports on both the Atlantic and Pacific coasts are open throughout the year.



Top: Logs in a bag boom at Victoria Harbour, Ontario. Centre: Sawmill and pulp mill at Fort Francis, Ontario, with logs in sorting booms. Bottom: A sawmill at Blind River, Ontario, on the north shore of Lake Huron.

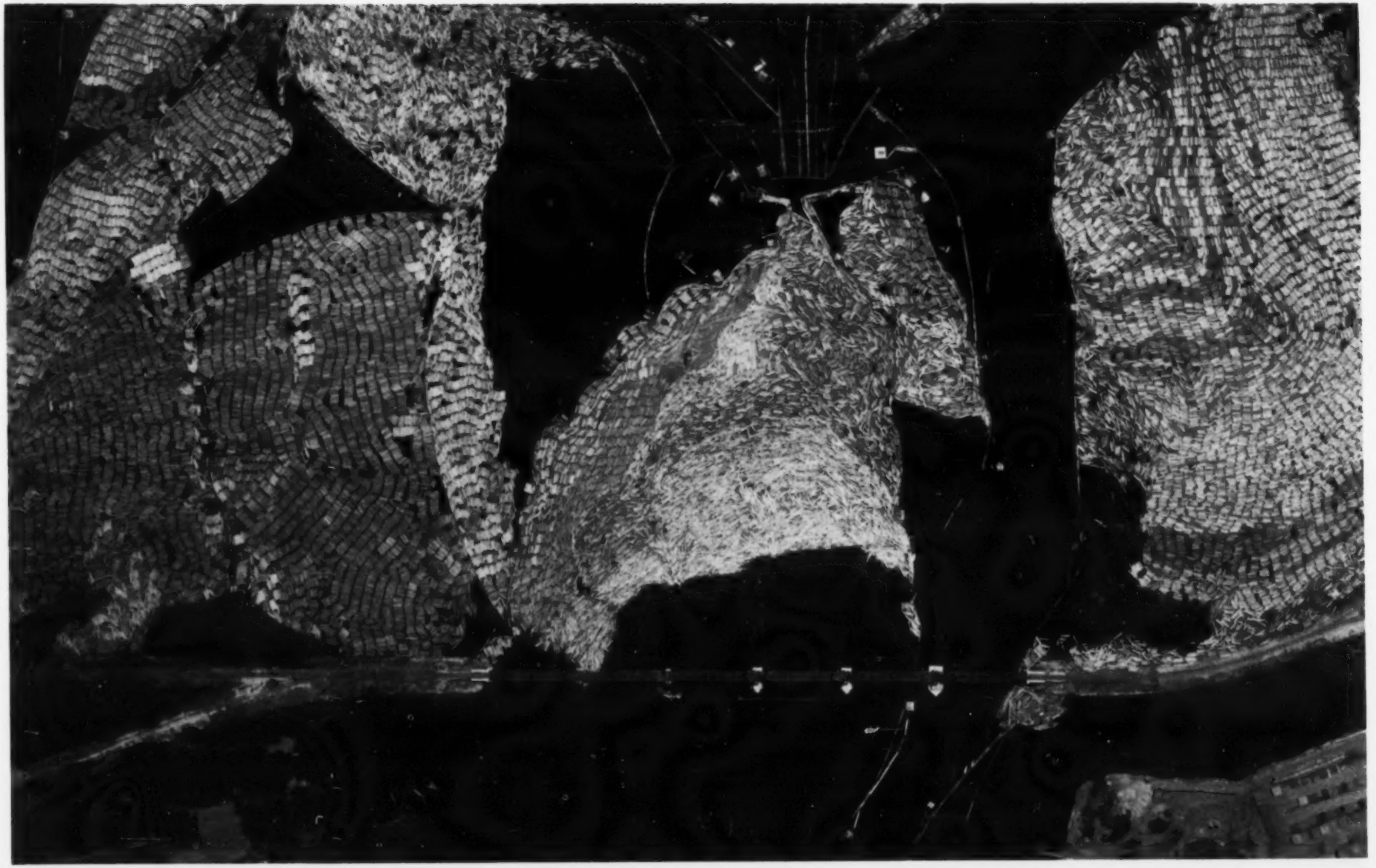


Sawing a Douglas Fir log. Note the absence of knots in this old growth timber. The last 200 to 300 years' growth is clear.

Photos by Leonard Frank.

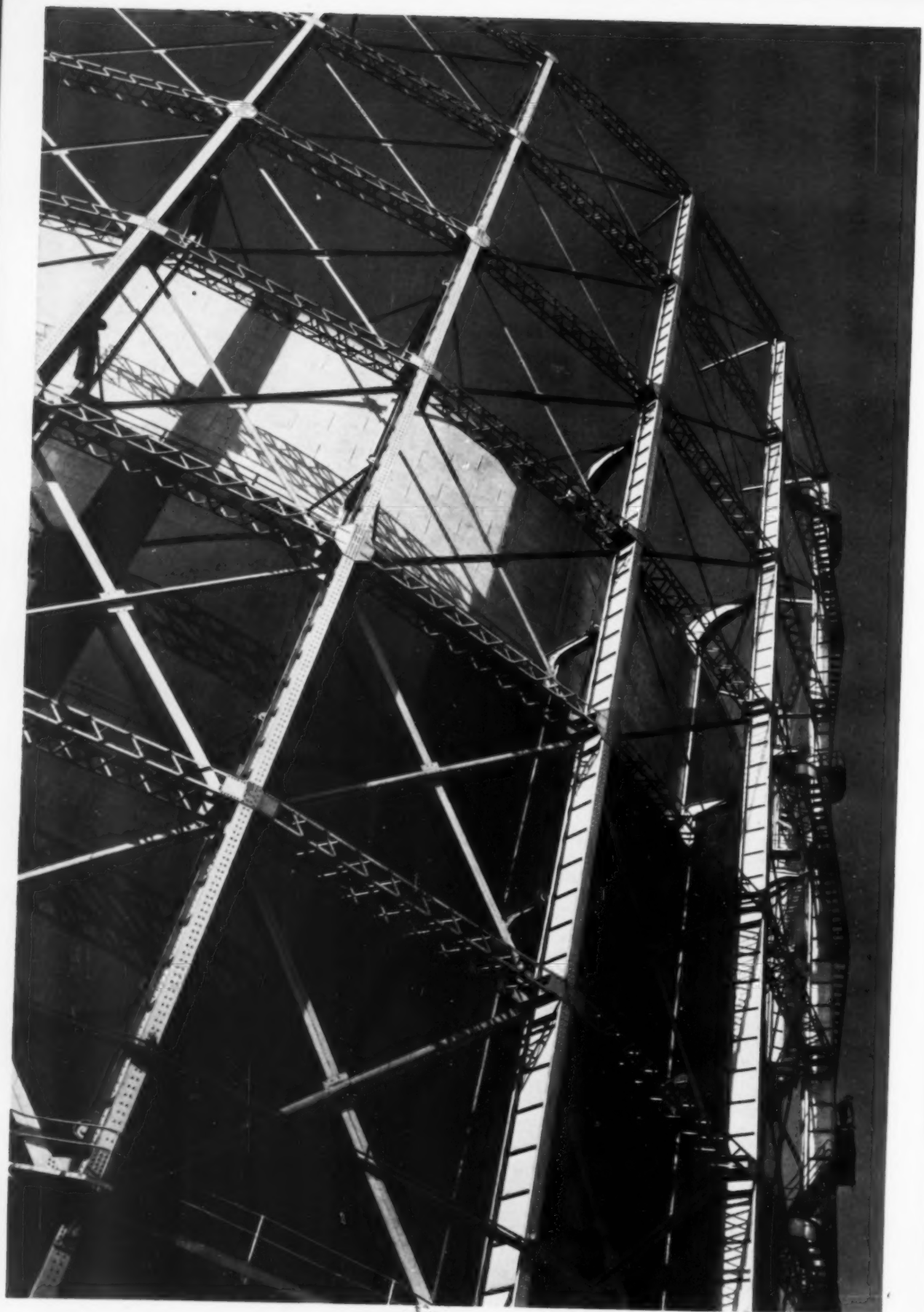
The Canadian Western Lumber Company mill on the Fraser River near New Westminster, B. C.

Booms of logs in False Creek, Vancouver, B. C. These booms are tightly constructed with cross swifters to hold them in shape so that they can be safely towed for hundreds of miles along the protected fiords and channels on the coast of British Columbia. Photo by R.C.A.F.



Log sorting booms at Ottawa where the logs of different kinds, belonging to various companies, are separated before delivery to the sawmills and pulp mills.

Photo by R.C.A.F.



Photographic Arts

Millions of life insurance dollars are invested in public utilities that bring light, heat and power to urban and rural homes.

LIFE INSURANCE IN CANADA

by W. A. WILLISON

RUNNING like threads of gold through the national fabric, life insurance savings contribute financial security to every phase of individual and national activity. They have been called "Homing Dollars" and "Pennies from Heaven," and they have proved literally a bulwark and last line of defense against private and public disaster.

As in old days, men still stir to romance, and find in new inventions and forlorn spaces something of the fabric of their dreams; but no romance equals the commonplace miracle of this thing that men call life insurance. Born of ocean hazards, when seafaring men sought security against commercial disaster, it has become the possession of all men and women whom consideration and thrift animate to protect the welfare of those dependent upon them, or to provide for their own old age.

It is less than a hundred years since the first life insurance company was established in Canada. Today half the adult nation finds financial security in its operations. Over three million five hundred thousand Canadians are united in this greatest of all cooperative businesses. They share in an estate of over six and a half billion dollars. They have assets invested in the Dominion of over two billion dollars — and they built and have extended this great business upon an actuarial foundation that has proved basically sound despite unprecedented war, epidemic, and depression, contributing their nickels and their dimes and their dollars, week by week, month by month, year by year, to their common interest and their common advantage, until there is not a hamlet or village or town or city in Canada that does not benefit individually and corporately from their collective savings. They have great companies with highly trained experts directing and administering their affairs, but they themselves own ninety-seven per cent of all life insurance funds. The companies acting for them stand in relation to these millions of men and women as trustees, exercising a vast and precious stewardship. As the Minister of Finance told their executives at the annual meeting of the Canadian Life Insurance Officers Association, it is a policyholders' business, not a shareholders' business:—

"This gathering constitutes the greatest economic trusteeship within the boundaries of this country . . . you have on behalf of three and a half million policyholders a greater stake in Canada than any other single industry . . .

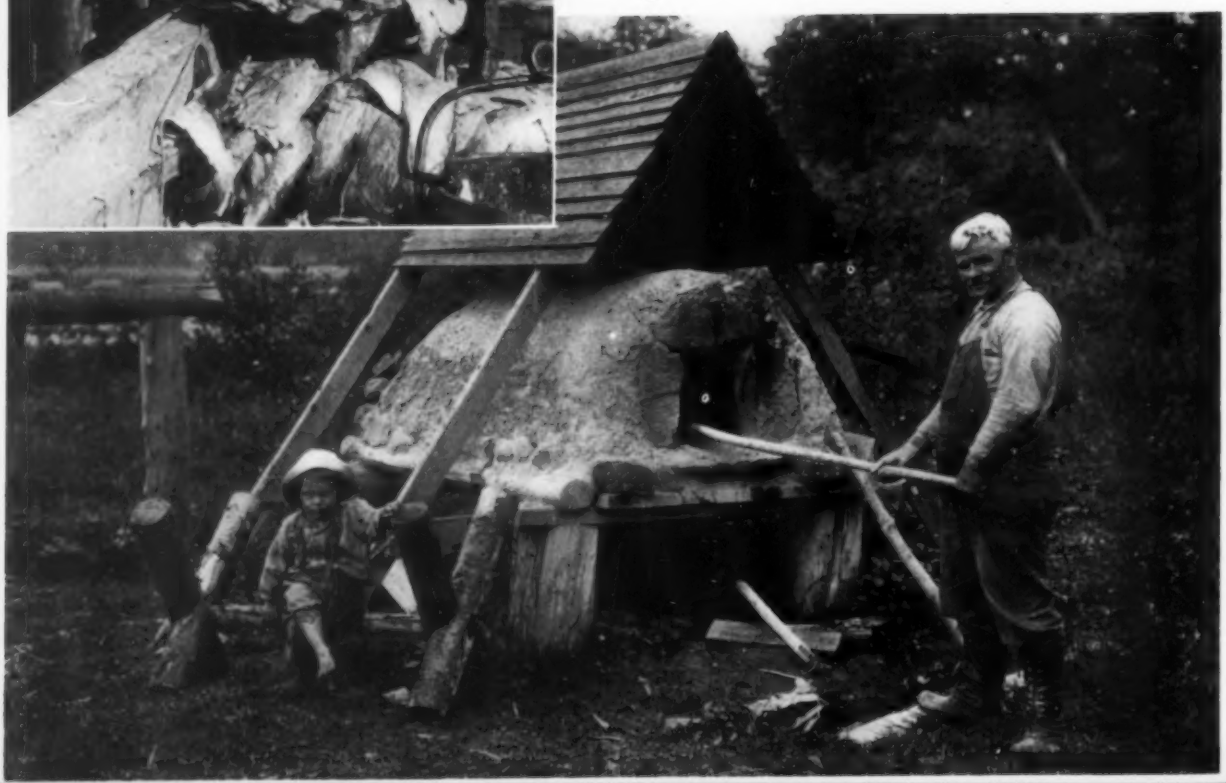
"There is no other business in this country in which the interest of the shareholders is as infinitesimal as it is in connection with the life insurance business. The interest of the shareholders is ever last . . . The share interest is very small now; so small as to have no bearing on the question of trusteeship in relation to the handling of policyholders' funds."

It is the policyholders in life insurance who constitute the biggest of the big interests in Canada. As such, they, through their savings invested for them by their companies, have been a vital force for economic stability and progress. Linked together for their common good, they help to bind province to province and give unity to the Dominion. And the whole nation benefits. How greatly it benefits may be gauged from the fact that, with their two billion dollars of investments in the Dominion, these policyholders have greater holdings of government and municipal bonds than the chartered banks; their real estate loans are double those of the mortage and trust companies combined; their funds exceed the total deposits in banks, trust companies, and all government depositories combined.

These are cold facts, too cold to indicate the constant flow of constructive dollars that, having their source in life insurance, stream every day into national channels. To community after community, from great metropolitan centres and thriving towns to farming districts and little hamlets, life insurance dollars help to run the machinery that turns the wheels of administrations, to pay wages to municipal

The commercial, industrial and agricultural life of Canada is backed by life insurance dollars, sustaining those manifold activities that give life to communities and jobs to those who live in them.

Photos by S. J. Hayward



employees, to extend work on public utilities, to build homes, to cultivate the soil and to stimulate production. They make the waterworks work, the street cars work, the electric light and power plants work, and promote all those manifold activities that give life to communities and jobs to those who live in them. These dollars, life insurance savings, build bridges and pave highways, extend transportation facilities, assist in carrying the myriad obligations of city, town and country. At the call of governments, they have helped, federal, provincial and municipal authorities to carry on public improvements and necessary works of administration. Public utilities, federal, provincial and municipal, have used them to develop their enterprises. Commerce has called upon them. Industry has called upon them. Agriculture has called upon them.

Let us animate the picture. Toilers in coal and iron upon he Atlantic seaboard find employment through the life insurance dollars invested in the industries that pay their wages. On the Pacific, British Columbia dreams of great days ahead, with an ever-growing commerce with the Orient to swell her domestic riches, and help to realize her heritage. Life insurance dollars back the vision. Edmonton, gateway to the Peace River district; Calgary, at the foothills of the Rockies; all Alberta, in fact, sought money for development. Life insurance dollars flowed in to meet the need. To Saskatchewan, they helped, and still help to give seed, grain elevators, transportation east and west for the harvest, relief in drought and in distress. But the recital at best is lame and woefully inadequate. Manitoba, Ontario and Quebec owe much of their development and stability to life insurance dollars that have assisted a multitude of occupations and undertakings, while New Brunswick, Nova Scotia and Prince Edward Island have benefitted in like manner from life insurance funds.

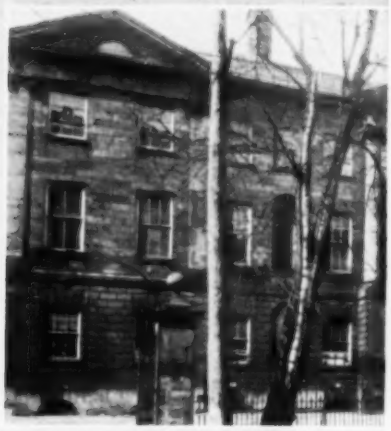
A detailed analysis of life insurance investments in Canada, made when they totalled $1,800,000,000, showed that Canadian companies reporting to the Dominion Department of Insurance had investments in Dominion, provincial and municipal securities, including township, county, village, rural telephone and school debentures, as well as public utility and corporation securities, amounting to $778,900,000. To these were added like investments in Canada of British and foreign companies operating in Canada of $381,568,000, a grand total of over $1,160,000,000. In mortgage loans, these Canadian, British and foreign companies had invested over $365,000,000, the total amount of mortgage loans for the Canadian companies being $325,467,000, of which $67,947,000 was in farm mortgages. In addition to these investments, policy loans of the Canadian companies amounted to $295,134,000, of which it was estimated that at least one-half, or $147,367,000, was loaned in Canada to Canadian policyholders. Loans by British and foreign companies operating in Canada to their Canadian policyholders totalled another $60,000,000.

On this basis, the total investments of Canadian life insurance companies in Canada amounted to over $1,252,000,000, and of British and foreign companies to another $500,000,000. To this was added the amount invested in Canada by those Canadian life insurance companies operating under provincial charters, under the supervision of the various provincial insurance departments, giving a grand total of investments in Canada of over $1,800,000,000.

Since then, these assets have been increased by over $200,000,000; and the broad picture is much the same. There have, of course, been certain variations in the character and amount of particular investments. Let us look at mortgages, for instance. At December 31, 1935, Canadian life insurance companies had mortgage loans outstanding in Canada of $295,000,000. This compares with $325,000,000, as at December 31, 1932, a decline of $30,000,000, significant as a trend, but not of great immediate import. What is of particular interest in analysing the character of life insurance mortgage loans is that, on the average, it takes the accumulated savings of six policyholders to provide funds for a mortgage of $3,000—a financial fact of unusual human interest when one considers the total of life insurance funds invested and the distribution of these funds to the various provinces. At December 31, 1935, the total value of the mortgages on city, town and farm properties in the Dominion, by all companies, Canadian, British and foreign, operating in Canada, was $382,779,025, made up as follows:—

BULWARKS

Legislative Building, Toronto, Ontario.



Scenes of political conflict, but sources of protection for investments by shareholders in the Dominion: Federal Houses of Parliament at Ottawa and Legislative Buildings in nine provincial capitals throughout Canada.

Legislative Building, Victoria, British Columbia.

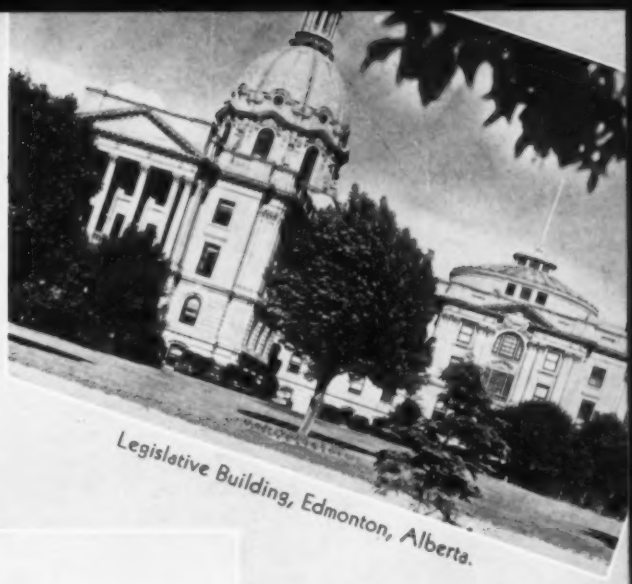
egislative Building, Charlottetown, Prince Edward Island.

Above—
Legislative Building,

Federal Houses of

Legislative Building, Fredericton, New Brunswick.

OF CANADA



Legislative Building, Edmonton, Alberta.

Legislative Building,
Winnipeg, Manitoba.

Federal, provincial and municipal securities comprise a large proportion of the $2,000,000,000 invested in Canada on behalf of some 4,000,000 policyholders by Canadian insurance companies and others operating in this country.

Legislative Building, Quebec, P

Halifax, Nova Scotia.

Parliament, Ottawa.

Legislative Building,
Regina, Saskatchewan

British Columbia	$24,791,216
Alberta	25,577,903
Saskatchewan	50,263,684
Manitoba	38,482,929
Ontario	134,382,005
Quebec	108,352,499
New Brunswick	489,905
Nova Scotia	406,790
Prince Edward Island	32,094

As in the case of mortgages; so with other investments. There have been adjustments, however, to meet general and particular conditions, but the fact of national moment is that two billion life insurance dollars are working for the national good in Canada.

And these dollars, impressive as they are in the aggregate, are still more impressive when one realizes the smallness of the individual contributions, and the millions of contributors who have combined, year after year, through their savings, to make life insurance not only the most democratic, as it is the greatest co-operative, business in the Dominion, but one animated by a common purpose that makes for thrift and security and a sane, constructive national outlook.

Estimates of the total number of life insurance policyholders in the Dominion run all the way from 3,500,000 to 5,000,000. The former figure is certainly conservative, and the latter is not out of line with United States' estimates, which give 50 per cent of the population as policyholders. But Canada is not as highly insured per capita as the United States, and the real figure is probably somewhere near 4,000,000. It is well established, however, that 95 per cent of Canadian policyholders are insured for relatively small amounts, running from $500 to $5,000. The total number of policies in force in Canada is 6,412,226. The average ordinary life policy amounts to $2,107, and the average industrial policy to $209. Life insurance is a business of humble homes, of farmers and artisans and white collar workers. Its story is the story of hard-earned savings, thriftily and conscientiously employed to protect loved ones or provide for old age. The average premium is only $60 a year, five dollars a month, a dollar and fifteen cents a week—but the total amount of life insurance in force in Canada today is over six and a half billion dollars. Not only have Canadian policyholders assets of over two billion dollars in the Dominion, but in the six depression years, 1930-1935, policyholders and beneficiaries received from life insurance savings one billion dollars—$500,000 a day every working day for six years—double the amount paid out in direct relief during the same period by the federal, provincial and municipal governments of Canada combined. Seventy-five per cent of these dollars went to living policyholders. This was individual service of vital magnitude, but it was also national service comparable to the value of life insurance investments all during the depression period. Individuals and families were sustained without recourse to public relief or private charity, and at the same time, employment was created where unemployment would have prevailed.

It might be argued that the depression period presented exceptional circumstances, but be it depression or be it prosperity, the annual distribution of these millions of dollars to policyholders and beneficiaries continues year in and year out. Last year, for example, the total of such disbursements was over $154,000,000, as follows:—

Death benefits	$43,395,422
Matured endowments	13,844,445
Disability benefits	3,188,550
Surrender values	62,933,160
Dividends to policyholders	27,910,639
Annuity contracts	2,922,488
	$154,194,704

Every province shared in these "homing dollars." There are difficulties in apportioning these disbursements precisely, but, leaving out the Yukon and the Northwest Territories, the following is approximately correct:—

British Columbia	$11,500,000
Alberta	8,600,000
Saskatchewan	8,800,000
Manitoba	9,400,000
Ontario	62,000,000
Quebec	40,000,000
New Brunswick	4,000,000
Nova Scotia	5,600,000
Prince Edward Island	600,000

Tested during the long depression, as it was not tested even during the Great War or the influenza epidemic that succeeded that war, life insurance has remained a standard when others, even gold, have fallen. Superior to the hazards of markets when stocks were crashing down and bringing the savings of a multitude down with them, and paying one hundred cents on the dollar when even Dominion Government bonds were at a discount, life insurance has met every claim promptly. True to every promise and fulfilling every

Portage Avenue and Main Street, Winnipeg, two of the widest thoroughfares in Canada. Life insurance funds invested in municipal securities promote development all over the Dominion

Grand'Mère, Que., where hydro-electric power is generated for the production of pulp and paper; a foundation for the printed word that enters all homes in the Dominion

Sydney, N.S., where life insurance dollars exercise an important influence on the extraction of iron ore and coal, both in the development of a great industry and the daily existence of those who wrest such wealth from the depths.

Photos by Canadian Airways

S. J. Hayward

Natural resources of this country, represented here by thousands upon thousands of floating logs, are developed through life insurance savings invested in the Dominion, providing employment in many large and small enterprises.

obligation, it has been a safe refuge under storms that threatened even fundamental things.

Much has been written in appreciation of this great co-operative business, but I have heard no more adequate tribute than that of Mr. Grattan O'Leary, the distinguished editor of the Ottawa Journal, in a brief and telling address at the last annual meeting of the Canadian Life Insurance Officers Association:—

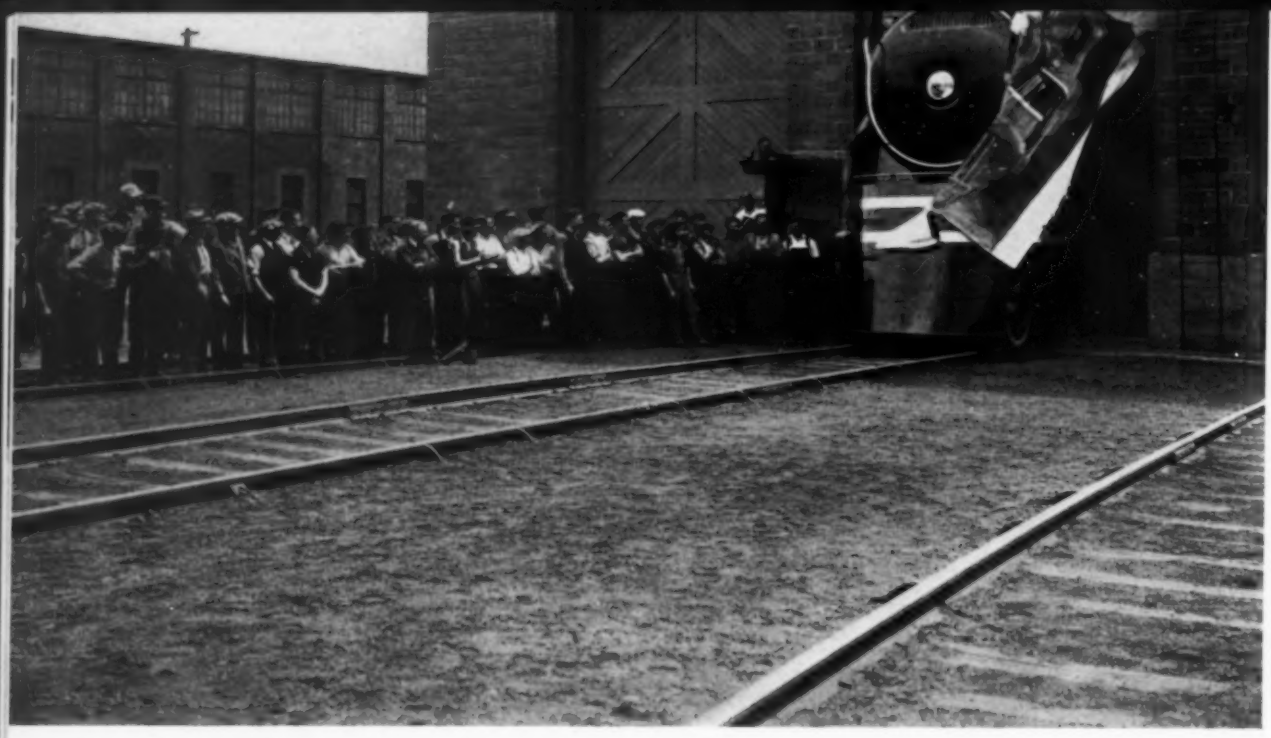
"I am in favour of life insurance," he said, "because it is the finest, wisest and safest investment that a man can make. It gives a man an estate, and security. It increases his confidence, self-respect and self-reliance. It removes fear and establishes credit. And it develops that sense of personal responsibility which is one of the great needs of our times.

"Life insurance gives to the individual a stake in the community and a stake in his own country. Because it does this, it is one of the greatest of all bulwarks against destructive forces . . .

"From a national standpoint, life insurance is a check and balance against periods of inflated prosperity and of extreme depression. In those black years, when fortunes and savings were swept away, life insurance was the one mooring that held for hundreds of thousands of Canadian families."

Canadian Airways

Grain elevator at Prescott, Ont., provided by the Dominion Government to facilitate the movement of western crops. This is an example of public utilities made available through extensive investment of life insurance dollars in federal securities.



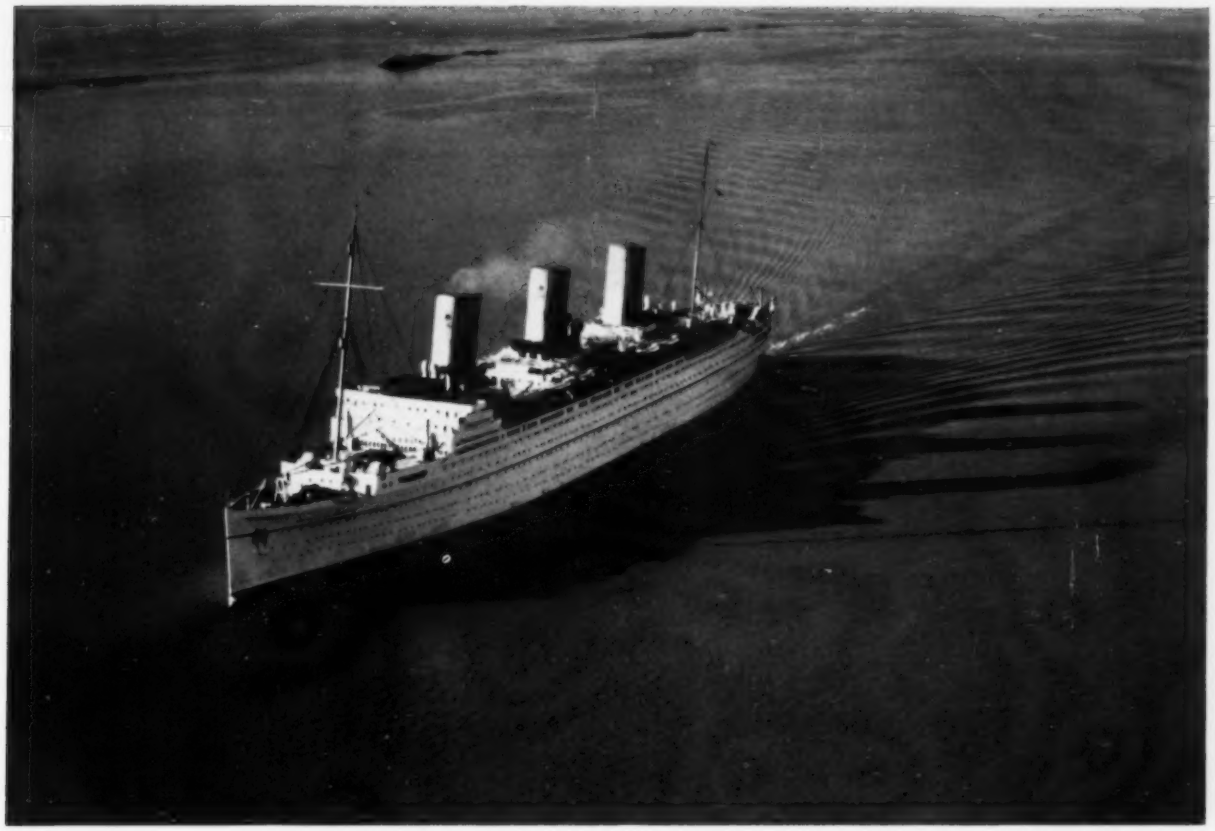
Railway facilities are made available to Canadians by the employment of public and private funds. (Top) Completion of a new type locomotive for the Canadian Pacific Railway is celebrated. Life insurance, in one form or another, receives the consideration of employees and executives in Canada's transportation

(Bottom) Canadian Pacific bands of steel traverse the Rockies.— Canadian National streamline locomotive at Bonaventure Station, Montreal, with new central post office behind.—Famous Quebec Bridge spanning St. Lawrence River.—Backing such activities as these are life insurance funds, promoting national development.

Pulp and paper mill at Ocean Falls, B.C., where is established one of many industries along the Pacific seaboard that seek stability in the Orient to stimulate commercial development. Life insurance policyholders, through their companies, have millions of dollars invested in British Columbia.

Photos by Canadian Airways

Oil refineries in Montreal, with tankers discharging fuel that will eventually drive automobiles, trucks, buses and aircraft along the highways and airways of the Dominion. Life insurance policyholders are vitally interested in the expanding industries of Canada.

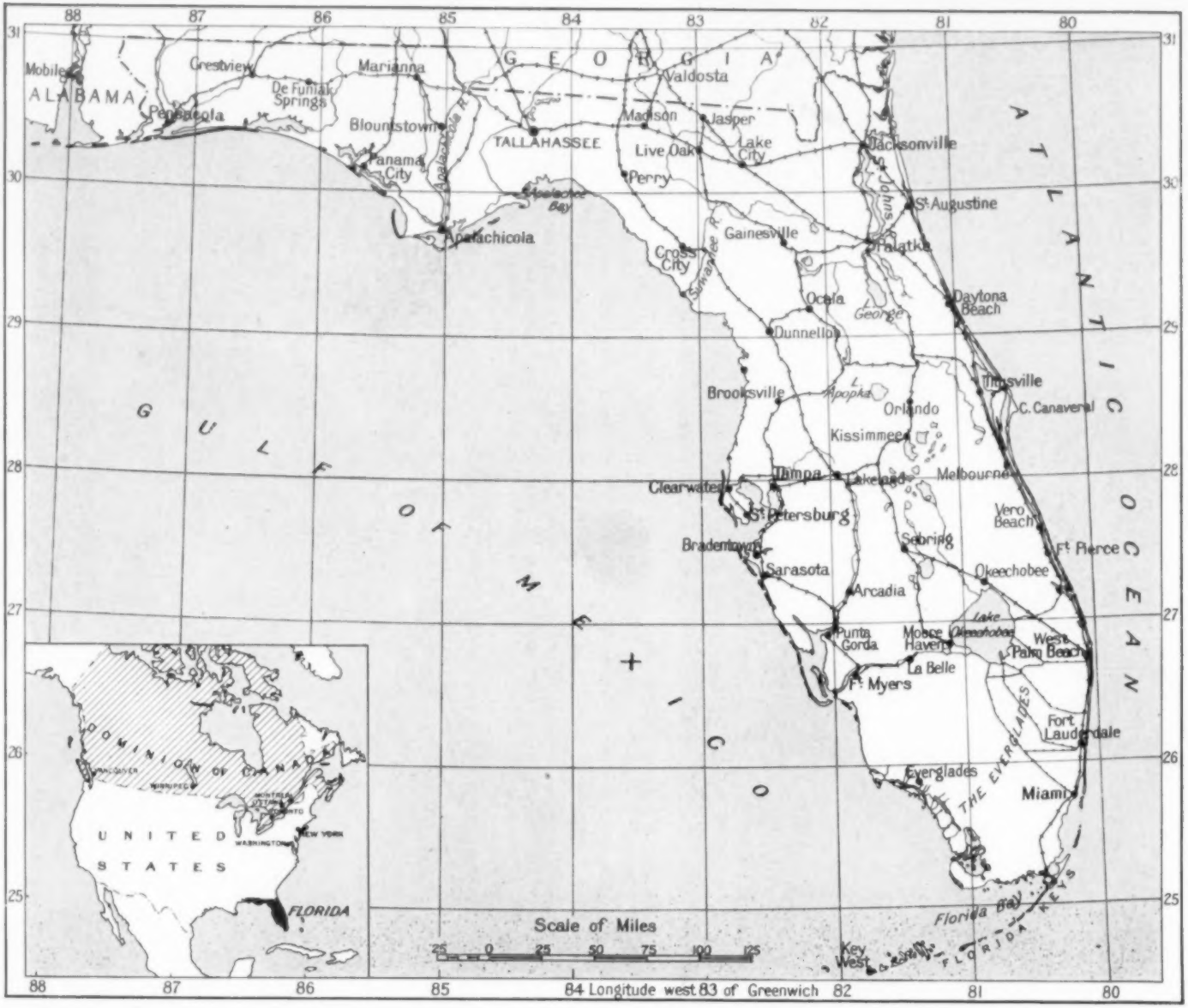


Canadian Airways

Canadian Pacific flagship Empress of Britain, built with Canadian funds, which is a goodwill envoy of the Dominion on her annual world cruises. She visits many lands where Canadian life insurance companies have offices or representatives, and enhances the fair name of this country, thereby attracting additional investment in Canada.

Good roads are a measure of national prosperity, and contribute to the provision of employment and general development of a country by attracting tourists from other lands. The investment of life insurance dollars in federal and provincial securities assists materially in the construction of highways that are a credit to the Dominion.

Photographic Arts


GEORGIA
ALABAMA
ATLANTIC OCEAN
GULF OF MEXICO
Mobile
Crestview
Marianna
De Funiak Springs
Pensacola
Blountstown
Panama City
TALLAHASSEE
Apalachicola R.
Apalachicola Bay
Apalachicola
Valdosta
Madison
Jasper
Live Oak
Lake City
Perry
Jacksonville
St. Johns R.
St. Augustine
Gainesville
Palatka
Cross City
Suwannee R.
Ocala
Daytona Beach
George L.
Dunnellon
Titusville
Brooksville
Apopka L.
Orlando
C. Canaveral
Kissimmee
Tampa
Lakeland
Melbourne
Clearwater
St. Petersburg
Vero Beach
Bradentown
Sebring
Ft. Pierce
Sarasota
Okeechobee
Arcadia
Lake Okeechobee
Punta Gorda
Moore Haven
West Palm Beach
La Belle
Ft. Myers
Fort Lauderdale
Everglades
THE EVERGLADES
Miami
Florida Bay
FLORIDA KEYS
Key West
DOMINION OF CANADA
UNITED STATES
FLORIDA
Scale of Miles
25 0 25 50 75 100 125
88 87 86 85 84 83 82 81 80
Longitude west of Greenwich
31 30 29 28 27 26 25

THE STATE OF FLORIDA

by CLAUDE PEPPER

FLORIDA is a finger of land 536 miles long, running down into tropical seas, fanned by the cool breeze of the Gulf Stream along its eastern and southern shores, and splashed by the waters of the Gulf of Mexico along its western shore line. It has an area of 58,666 square miles, 4,400 of which are water, consisting of beautiful bays, inland waterways, majestic rivers, and thousands of lakes, the largest of which has an area greater than the State of Rhode Island. Florida is larger than New York, Massachusetts and Rhode Island combined, and its area is greater than Denmark, Belgium, Switzerland and the Netherlands.

Its agricultural and horticultural operations are scattered from the Perdido river on its western border to the lime groves of Monroe County, a distance via Alabama and Georgia state lines and the Atlantic Ocean of 900 miles. There are now 72,857 farms, which are increasing in number at the rate of 115 farms per month. More than 100 kinds of productive soils are known and classified, on which are grown practically every crop known to temperate, semi-tropical and tropical zones.

Approximately 100 of our crops are commercial. According to daily accurate records kept by the State Marketing Bureau, Florida produced during the 1936-37 season an equivalent of 163,000 cars of fruits and vegetables with a gross value of $108,000,000. These figures include 102,827 car-loads of citrus fruits with a gross value of $68,838,000.

The total agricultural investment in Florida is approximately $800,000,000. Its gross income during the 1936-37 season was $160,000,000.

Since Florida has approximately 10,000,000 acres of land suitable for farm purposes agriculture is the foundation of the State's wealth. There is a vast undeveloped business in connection with our agriculture, with abundant moisture, more sunshine than any other section of the United States, and more growing days. The State is accessible to the great consuming centres and can move its products by rail, boat, or motor truck. Florida is within 48 hours of 90 per cent of the population of the United States.

From an industrial standpoint, Florida's manufactured products during the past ten years have had an approximate average annual value of $191,000,000. The State has $95,000,000 invested in wood manufacturing plants; all forest products, raw and manufactured, amount in value to $125,000,000 a year. With the promise of a great increase in the manufacture of paper, of cattle feed made of citrus wastes from canning factories, packing houses and cull fruits, also celotex and other building materials from the waste of sugar mills, together with the increase in sugar and tobacco manufacturing, the total value of manufactured products should be enhanced.

Florida's natural resources provide the raw material for the following manufactured products: glassware, chinaware, insulation materials, phosphate mills, cotton goods, paper roofing, cement, furniture, leather, fertilizers, and all kinds of soft and hard wood products.

With improved facilities for travelling, with excellent hotels, restaurants, beaches, fishing, hunting and a climate adapted to all forms of "summer" recreation, a large portion of the income of the State is derived from the tourist trade. During the season of 1936-37 there were approximately 2,000,000 visiting tourists in Florida who left a gross revenue to the State estimated at three to five million dollars. Southern resorts from Asheville, North Carolina, to Miami, Florida, are making preparations to entertain three million tourists during the coming winter season.

Although Florida has the oldest permanent white settlement in the United States, it is the last State of the Union to be developed. However, this situation is rapidly being remedied. One of the most interesting of present undertakings is the creation of the Everglades National Park. This proposed park will have a total area of 2,500 square miles at the tip of the peninsula, in the most tropical section of our State. The Federal Government authorized the establishment of this national park by an Act of 1934. The Everglades National Park Commission, created by the

Legislature of the State of Florida in 1935, has nearly completed its work in connection with the appraisal of the privately-owned land located within the proposed area. More than one-half of the total area of 1,280,000 acres is already available for national park purposes since it consists of land owned by the State or the Federal Government. The existing Royal Palm State Park has been made available for inclusion by the Florida Federation of Women's Clubs, by which it was established. It is contemplated that the Everglades National Park project should be completed within the next two years, by which time it will be accepted by the Federal Government for development and operation by the National Park Service.

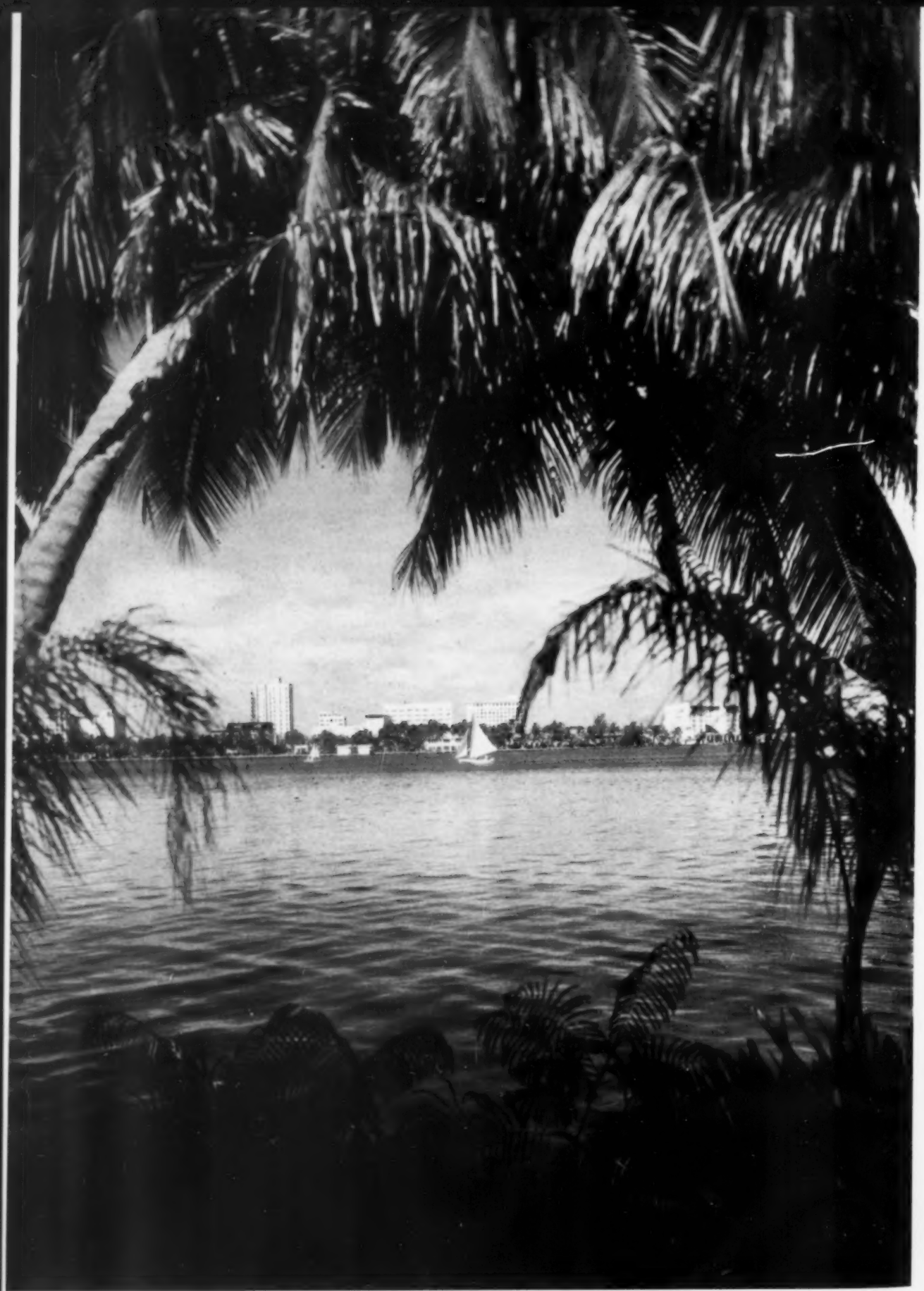
Florida's population has already increased by two-thirds in fifteen years, leading all the Southern States in percentage of increase in population. The climate is equable, healthy, suitable for both pleasure and work; our death rate low. Many visitors who come to rest, invest here and remain as citizens.

Florida is well endowed by nature; it has fertile lands, capable of producing food for millions; it has an all year-round climate; it is accessible by land, water, and air to the population of the western hemisphere, and the markets of the world.

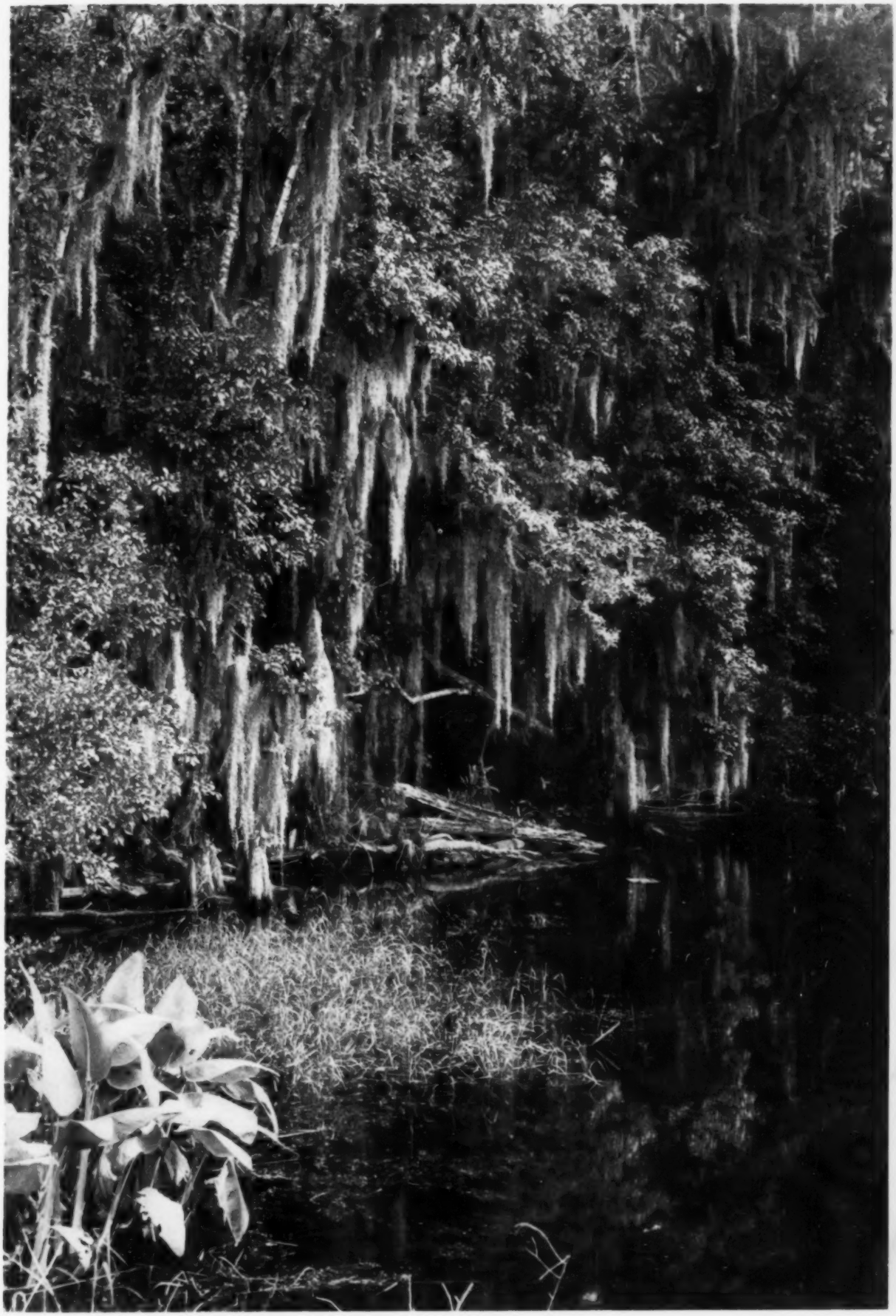
There is no closed season on straw hats and palm beach suits in Florida. You can swim, fish, and eat strawberries in January.

Here, in this land of opportunity, the home-seeker can find his objective, the tourist his play-ground, the invalid his health, and the citizen his goal.

The thrill of deep sea fishing is one of the favorite recreations in Southern Florida. Left: The landing of a sail fish. Right: A swordfish makes a bid for liberty.

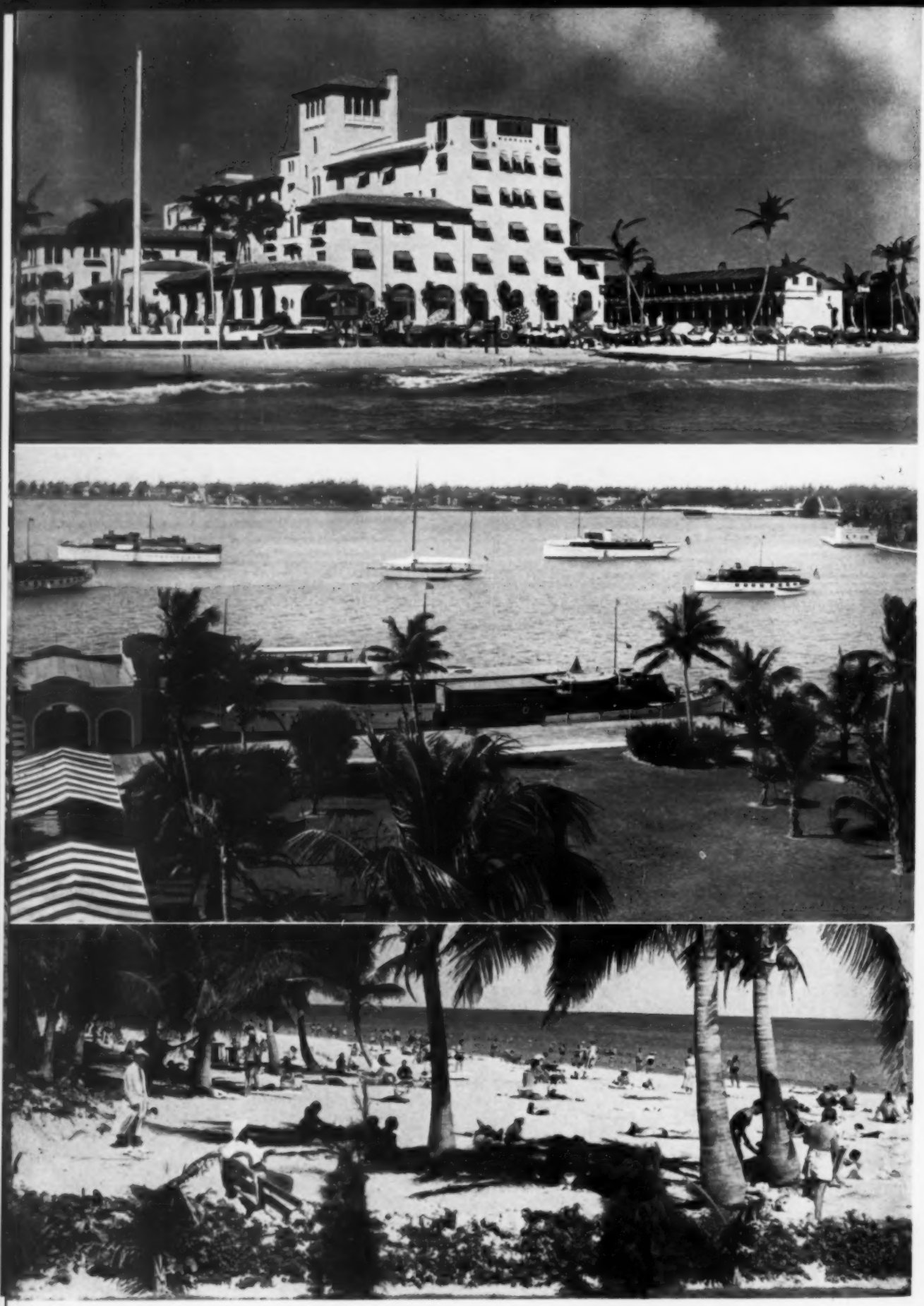


A picturesque view of West Palm Beah in January.

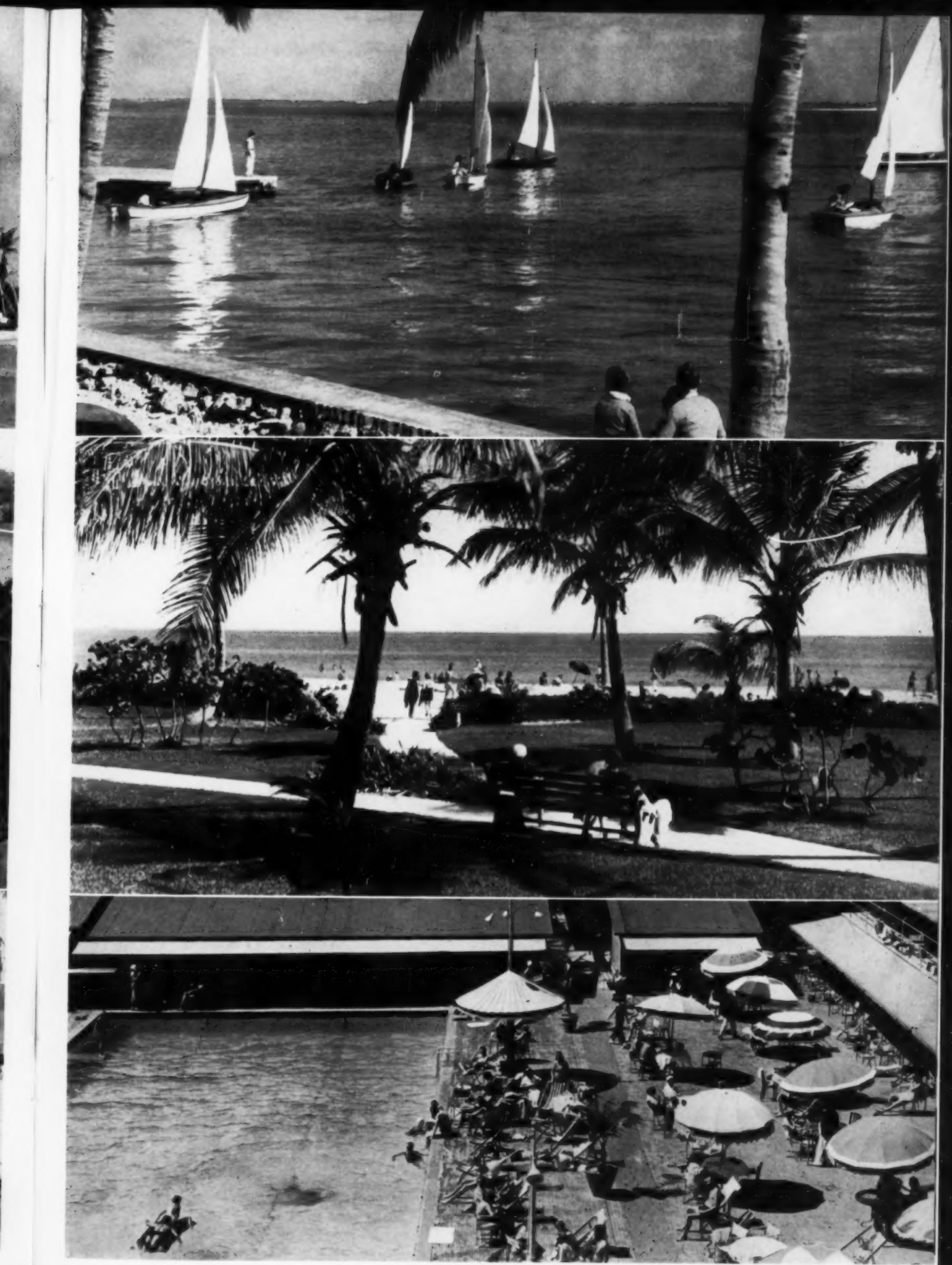


Spanish moss drooping from the hardwood trees is characteristic of Southern Florida.

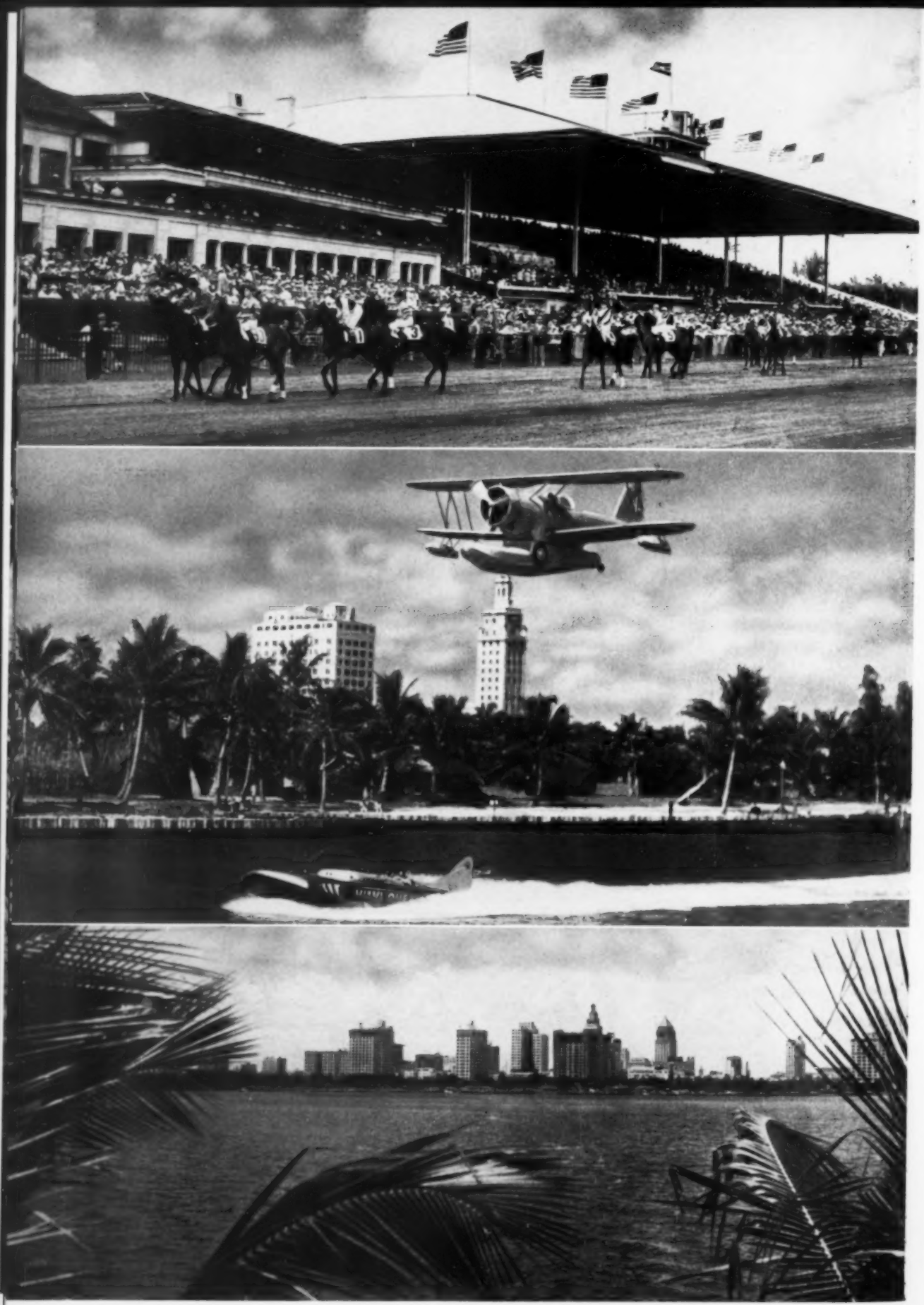
Florida is a famous breeding ground for great numbers of America's most beautiful birds. Upper left: American Egret. Centre: Big White Heron. Upper right: Young Blue Heron.



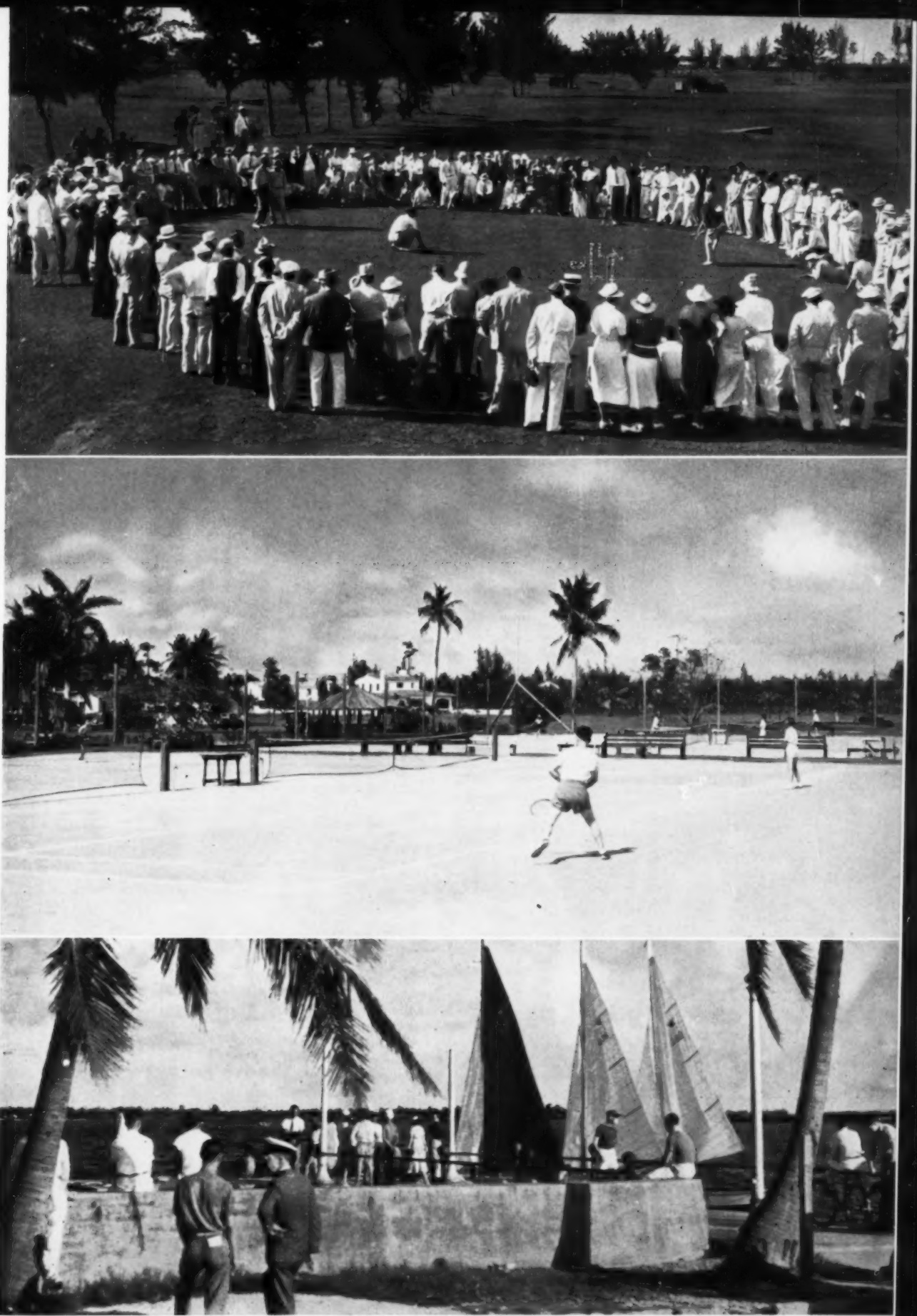
These representative scenes of Miami Beach, as it appears to-day, demonstrate the result of reclamation work.



Scenes of winter life; sailing on Biscayne Bay, palm studded Lumus Park and a typical cabana club.



Typical winter sports of the State of Florida are exemplified in these snapshots of Miami and its environs.



Golf, tennis and sailing can be indulged in twelve months of the year.

Palms and clouds are emblematic of Southern Florida.

Sunsets of rare beauty are characteristic of Florida, exemplified in this view of Miami Beach.

EDITOR'S NOTE BOOK

Roland D. Craig, F.E., who in this issue contributes "The Lumber Industry in Canada," was born at Ailsa Craig, Ontario, where his grandfather was a pioneer settler. After graduation from the Ontario Agricultural College, he went to Cornell University, where, under the tuition of the late Dr. B. E. Fernow, he received the degree of Forest Engineer. After a short period with the United States Forest Service in California, he returned to Canada and joined the staff of the Forestry Branch of the Department of the Interior, first as Inspector of Tree Planting in the Prairie Provinces and later as Inspector of Dominion Forest Reserves.

Leaving the government service in 1906, he spent eight years in the timber and lumber business in British Columbia. In 1914 the Commission of Conservation engaged him to conduct an inventory of the forest resources of British Columbia. During the Great War he was loaned to the Imperial Ministry of Munitions to take charge of the inspection of lumber for aeroplanes in British Columbia. Upon the abolition of the Commission of Conservation, he returned to the Dominion Forest Service, where for many years he has been chief of the Division of Forest Economics.

Senator Claude Pepper, who contributes the article entitled "Florida" in this issue, was born on a farm near Dudleyville, in Chambers county, Alabama. He graduated from the University of Alabama in 1921, and from Harvard Law School in 1924; taught law at the University of Arkansas in 1924 and 1925; engaged in the general practice of law at Perry, Florida, from 1925 until 1930, and at Tallahassee, Florida, from 1930 until elected to the United States Senate in 1936, representing the State of Florida.

Mr. W. A. Willison, who contributes to this issue the article entitled "Life Insurance in Canada," after leaving the University of Toronto engaged in newspaper work on the Vancouver News Advertiser for one year. He returned east to join the Toronto Daily News. After some experience in the Ottawa Press Gallery he left Canada in September, 1914, to act as resident and war correspondent of the News in London, England. Returning to Canada at the end of 1916 Mr. Willison was head of the Educational Department of the Canada Food Board, under the Hon. W. J. Hanna. He resigned to succeed Mr. Stewart Lyon as accredited war correspondent with the Canadian Corps at Corps Headquarters in France and on his return to Canada he acted for four years as the head of the Editorial Department of the Canadian Reconstruction Association. He was associated with his father in the publication of Willison's Monthly. For some years Mr. Willison has been connected with the MacLaren Advertising Company, Limited, as account executive.